



College AND UNIVERSITY Business

**OCTOBER 1949: Are Colleges Good Credit Risks • Office Procedure
Manual • Better Food Cost Control • Management of Maintenance Men
Preservative Treatment of Wood • Machine Bookkeeping Installation**



REGIONAL PACTS AS AN ANSWER TO EDUCATIONAL INEQUALITIES

J. D. WILLIAMS

Chancellor, University of Mississippi
University, Miss.

EDUCATION IN ALL FIELDS IS BECOMING HIGHLY specialized. As students progress in their fields of specialization the cost per student becomes greater both to the student and to the institution. Because of limited tax resources, the Southern States were first to come face to face with the choice of seriously limiting their offerings or placing an intolerable financial burden upon themselves.

The Conference of Southern Governors, meeting in Tallahassee, Fla., in December 1947, decided that the problem was too big for any one of the Southern States to meet successfully, but by pooling its resources the southern region could ignore state lines and thereby provide the opportunities of specialization to the students of the South in their own region. The research in these regional centers would be meaningful to the region since the institutions would be located there. Students who are graduated from the regional centers are available for employment in the region and are prepared to work in their special fields. There are other obvious reasons why the development of these centers in existing colleges and universities in the region through the combined efforts of the states will be of great assistance in the improvement of the quality of living of the people of the region.

Unfortunately, the question of the segregation of the races has led some of the Negro leadership to oppose regionalism in all of its phases. The Negro of the South understands the problems of his race and its relationship to the white race much better than his northern counterpart. The same is true of the white man of the South. Time, patience, understanding, education and the church are on the side of improved relations between the races in the South. It is a social pattern that is the result of many complex forces and will not be changed peacefully by legislative fiat but must first find its solution in the hearts of men. The program of regional education will carry on within the social pattern that prevails in the state in which the institution serving the re-

gion may be located. Every effort has been made and is being made to keep the high purpose behind the movement of regional education free from controversy because it is sound and holds great promise.

From the beginning the idea was accepted by the people of the region. It is not a new idea. Leading educators have dreamed and given expression to their dream for a quarter of a century. It took the political leaders of these states to make the dream effective. The Conference of Southern Governors has been taking active interest in the program and as long as it continues to do so the necessary financial support is assured.

Transition from the temporary organization, the regional council on education, to the permanent one provided for in the compact, the board of control, was completed at a meeting held at Daytona Beach, Fla., on June 11. The board of control is comprised of three members from each of the signatory states and the governors as ex officio members. The headquarters staff that had been set up by the council was continued by the board of control, and the program will continue without interruption.

The immediate needs of the region were the first to be considered. These were in the fields of human medicine, veterinary medicine, and dentistry. More than \$1,500,000 in contracts have been executed by the central regional office by which states purchase educational services for their citizens in those fields that are not available through their own state institutions. It is not contemplated that any new institutions will be built as regional projects. The present policy is to locate the most favorable institution in terms of the educational field to be developed and provide regional support for it. These states have recognized the folly of trying to provide educational services that each state needs within its own borders. Under the present program the entire region of 12 states will operate as a unit in determining the educational needs of the region and in meeting those needs adequately.

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PUBLISHING AND
EDITORIAL OFFICES
919 N. MICHIGAN AVE.
CHICAGO 11, ILL.
SU perior 7-6402

EASTERN OFFICE
101 PARK AVE.
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MU rray Hill 3-2445

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Among the Authors



D. W. Rich Jr.

DONALD W. RICH JR., director of alumni and public relations at the Peddie School, describes on page 7 the technics employed to keep students and parents interested. He joined the Peddie staff in 1936 as a master in the social studies department and as director of publicity. Since that time he has become chairman of the department of social studies and has taken over alumni and public relations activities of the school. He is active in civic affairs, as president of the Hightstown Y.M.C.A., and a member of the local Lions Club.



R. K. Shaw

ROBERT K. SHAW, treasurer and business manager of Florida State University, had many years of business experience as owner of a hardware and an insurance business prior to 1942 when he accepted an appointment as purchasing agent on the university staff. In 1945 he was promoted to his present position, and on page 10 describes the work done in establishing an office procedure manual as a means of improving the efficiency of the department. As a sideline, he enjoys the study of history and biography, but his favorite hobbies are hunting and fishing.



R. W. Feyerharm

ROBERT W. FEYERHARM, secretary-treasurer of Yankton College in South Dakota, has been much interested in improving bookkeeping procedures in a small college and describes on page 29 the recent installation of a bookkeeping machine. He has been a member of the college staff since 1930; even before that time had worked for the college during summer vacations. Mr. Feyerharm was named to his present position in 1940. Music and athletics have been of major interest to him; he is active as well in local civic clubs and Masonic orders.



D. K. Stanley

DENNIS K. STANLEY, dean of the college of physical education, health and athletics at the University of Florida, describes with pride the new gymnasium there in a story beginning on page 20. Most of his coaching experience has been at the University of Florida, where he first started as end coach and freshman baseball coach in 1931. In 1933 he became head football and track coach and was named director of physical education and intramurals in 1936. From 1939 to 1946 he was a member of the Duke University staff as end coach, assistant track coach, and instructor of physical education. He was appointed to his present position in 1946. . . . E. B. FARRIS, chief engineer of the division of maintenance and operations at the University of Kentucky, tells on page 33 of the problems that must be considered in the establishment of a personnel program for maintenance department staff members. Of all things, he is the author of a book on descriptive geometry!

Looking Forward

Empire Building

THE BEGINNING OF A NEW ACADEMIC YEAR OUGHT to be a good time for members of the college staff to try pulling together as a cohesive unit. Yet how often many of us are guilty of building ourselves up at somebody else's expense.

Why is it that some department heads appropriate ideas submitted to them by their associates and pass them on "to the right people" as if they were the originators? Is it because they sense the associate as a competitor and a threat to their security?

Wise administrators have discovered that it is good business to train an associate as a successor. Otherwise the administrator becomes such an indispensable person that he jeopardizes his own possibility of promotion because there is nobody to succeed him in his present responsibility.

"Empire building" may satisfy the ego of the department head, but seldom is it the way to genuine satisfaction and accomplishment.

Insurance Counselors Needed

"THIS INSURANCE BUSINESS IS TERRIBLE — WE'RE exposed to too many local pressures — we're sold too many different policies — nobody has enough interest to serve as a genuine insurance counselor" — are complaints voiced by some college administrators.

Admittedly, there may be local situations in which the foregoing charges are typical and in which both the institution and the insurance business suffer: the first, because exposure to hazard may not be adequately insured and the institution incurs a serious loss, and the second, because the insurance agent has engendered hostility and resentment on the part of his client.

If the college executive would first get away from the idea that every Tom, Dick and Harry alumnus in the insurance field was entitled to a share of the institution's business, he would be making a move in the right direction. Selection of an insurance counselor should be on the basis of the individual's or firm's known reputation for competence, service and adequate staff. A college should avoid having too many persons involved in handling the institution's insurance program. It is logical that a company carrying a major part of a college insurance program will give it special attention.

The insurance company offering the lowest premium may not be the best one to handle the college program. Too often there may be a joker hidden in the "excep-

tions" listed in small print on the back of the policy. In obtaining fire insurance, for example, the college should look with favor on the company that makes a painstaking inspection of the premises. As one college administrator put it, "I want an insurance engineer to tell me how to keep our buildings from being destroyed by fire—not just to pay for them after they have been lost." That makes good sense.

Recent court decisions unfavorable to nonprofit organizations by denying these organizations their traditional exemption from public liability and suit constitute a trend that should be studied by college administrators when considering the area of public liability insurance.

Insurance representatives would do education a service if they would serve as counselors and not as high-pressure artists. Statesmanship, as well as salesmanship, should be the order of the day.

The P.A. Tells His Story

HOW MANY WELL INTENTIONED PLANS FOR ESTABLISHING a centralized purchasing system have come to an untimely end because some departmental prima donna didn't want to cooperate? Probably more times than some purchasing agents would care to admit.

Perhaps the fault lies not with the department head but with the purchasing agent himself. Maybe he needs to tell his story differently.

For some department heads there must be terrific inflation of the ego in being able to do the buying for their departments, judging from their jealous guarding of the privilege. Others, being better administrators, have delegated that responsibility to the purchasing agent.

Most department heads are anxious to stretch their departmental budgets as far as possible. On that point the purchasing agent should pivot his story. Through centralized buying, with the economies inherent in volume, it may be possible to save substantial sums for a departmental budget, enough perhaps to buy several extra units of the product under consideration or to take care of some entirely different need of the department. That kind of dollar-stretching can be understood, even by a prima donna.

As in most situations involving individuals, it is a conflict in personalities rather than in principles that causes the trouble. If the purchasing agent will recognize that situation and go the second mile in working out a solution, a big improvement in buying technics eventually should be noted.



Courtesy of Continental Illinois National Bank and Trust Company of Chicago

ARE COLLEGES GOOD CREDIT RISKS?

IS A COLLEGE A GOOD CREDIT RISK?

There is no easy or quick answer to this question. Without a lot of soul-searching and fairly agonizing readjustments there may be an unfavorable answer for many institutions within the next two or three years.

Each business officer must keep in mind his own school and try to predict how his institution will handle the financial aspects of the probable changes that rapidly are developing.

For the purpose of this discussion, let us take as our college a private institution with some endowment funds, which, in addition to its endowment, has been the recipient of some annual or periodic gifts, legacies or bequests but which at the moment has nothing in the way of an unrestricted fund or spendable principal and probably has depleted or insufficient working capital.

If our college is typical of most private schools, it has already learned that the periodic bequests and gifts upon which it used to depend to help with

From an address given at the annual meeting of the National Association of Educational Buyers, Boston, 1949.

VINCENT J. P. CONNOLLY

Smith, Barney & Co.
New York City

the annual budget have been drying up during late years. It even may be that our college has been eating into these "stringless" gifts at a faster rate than they have been received lately until it has come to the bottom of the barrel.

FUTURE UNCERTAIN

In addition to this financial predicament, the college, after straining every facility, physical and financial, in order to accommodate a tremendous G.I. educational program, sees its enrollment falling away to half in the next year or so and leaving in the wake of four years of excessive use under-maintained and under-repaired buildings, roads and grounds and a very large staff and program in relation to a future student body. And standing in the background is the great unknown factor of the pending and hotly debated federal education bill.

Thus stands our college. The world has invaded the campus and demands

immediate answers and decisions. The customary leisurely approach to such questions of program change, financial readjustment, fund raising campaigns, and changes in personnel must give way to rapid decisions about these problems. However, even if the answers and decisions are ready immediately, it may take a year or more to execute a decision on any of the foregoing problems. If several of them must be put into effect at once, the total time lapse might well run into two or three years, or even longer.

For example, a fundamental change in educational program with the resultant turnover of teaching personnel, catalog changes, and changes in student recruitment involves a time lapse of at least a full year. A change in objectives of an investment portfolio means changes in security holdings at a careful pace, well timed in accordance with market conditions.

As a general rule, the typical college probably has on its hands a series of problems that will take two or three years' time to solve and that carry a financial burden common to all transition periods, namely, the need for

funds to wind up the end results of an old program and to start off the new one. The same thing happens to businesses, and in these circumstances the managers of a business will go to a bank to arrange the necessary financing. Why can't a college do the same thing? Basically, the answer lies in the understanding of bank credit.

A man enjoys a good credit rating when he has both the ability and willingness to repay what he has borrowed at the time he promises to repay. In the case of a going business, it is possible for a bank to study management, earnings records and projections, industry position, consumer acceptance, price levels, production costs, and capital structure and requirements, and on the basis of these studies be able to determine with some degree of assurance whether or not the business will have the resources at the end of the credit period to repay the sum of money borrowed. Willingness to repay is usually provided for in the terms of the loan and, generally speaking, if the resources are there the bank will be paid.

SUBJECT TO CRITICISM

When an attempt is made to apply the same technic of investigation to an institution like a college, a host of difficulties arises. Most important of all, the bank is deprived of the heart of any bargain, namely, the ability to force compliance with the terms except at the expense of extremely adverse and unjustified public criticism.

The public well understands that the money a bank lends actually belongs to its depositors, and when a borrowing business is unwilling or unable to repay a loan the public takes it for granted that the bank is duty bound to protect its depositors' money by bringing pressure on the business to rearrange its methods of operation. What bank, though, wants to find itself in the uncomfortable position of having the federal or state banking examiners bring pressure designed to force the payment of an overdue college loan, when the only way that the loan can be collected is by closing the school and attaching the endowment income?

It must be borne in mind that commercial bank credit is based on self-liquidating loans, *i.e.* the bank loans against something that is foreseeable and not against something that is an intangible or a vague hope.

Why should a college have so much difficulty in convincing a bank that it is not both able and willing to

repay? There is no single answer; the practical result of only the few years' experience since the war is that bank examiners already have turned a bit wary with regard to college loans. Bank examiners turn wary on the basis of experience and, therefore, the experience to date must have been unfavorable in some instances.

Why are private colleges in danger of acquiring, if they have not already received, the dubious reputation of bad pay or slow pay? Here, I think, are some of the reasons:

1. Boards of trustees have changed over the years. Money givers or raisers used to predominate, but today they are far outnumbered by professional people capable and brilliant in their fields but with little or no access to wealth.

2. For decades colleges had little or no competition in obtaining a large share of funds available for social purposes. Today the educational institution has to compete with a multitude of social agencies of the welfare state that seems to be developing in this country.

3. Prior to the Thirties numerous rich individuals existed who could be depended upon to devote large amounts of current income or accumulated wealth to the particular institution of their choice. In recent years such individuals have become extinct.

4. Then there are the traditions that money for program or expansion of facilities will be found somehow; that Alma Mater must be an indulgent employer (in the sense of many hands make light work); that in the interest of academic greatness no limits should be imposed on ambitions of department heads when they submit larger and larger budgets each year; that periodic overhauling of general administrative structures in order to eliminate wasteful practices and unnecessary or inefficient personnel is unnecessary.

DECIDE ON PROGRAM FIRST

All of these reasons add up to a state of mind that rebels at any form of belt-tightening. When money is borrowed under this psychological handicap, the loan often "loses both the friend and the loan." Therefore, the first step in qualifying for credit is to understand that the loan must be sought only after a definite future program is decided upon and the college is able to say with reasonable assurance that it will have X amount of

income from endowment, fees and auxiliaries and therefore will have the resources to offer X amount of educational program.

At the moment of determination, it may appear that a balance of resources and program is two or even three years away—endowment investments may need readjustment to bring higher income, tuition fees may have to be adjusted to a new program, and auxiliaries may have to be reorganized—but once the determination to balance resources and program is made, a basis of credit begins to form.

AMOUNT VARIES

The next step is to determine the amount of money that will be required to wind up the old program and start off the new program with proper working capital. This amount of money, of course, will vary with the size of the job, but because it represents the amount that has to be repaid as a result of sacrifice, economy and efficiency, it should be calculated carefully.

The third step consists of gathering every financial resource that may serve as a basis for the loan. I might say a word here about fund accounting *vs.* business accounting. As a basis of credit analysis the audit of the average educational institution is somewhat difficult for the banker to follow. The institutional balance sheet differs a good bit from the ordinary commercial concern balance sheet with which the banker is acquainted. The college should comb over its assets and see what can be unfrozen and placed among the live assets. I refer particularly to all those little reserves that are set up from time to time to account for uncompleted plant funds, unfinished campaign funds, unspent appropriations, and so forth. It should get court relief from the terms of those impossible-to-fulfill scholarship funds and special bequests. It should go over both sides of the balance sheet, cancel out where possible, and reduce other items to simple terms.

The fourth step is to examine "earning" assets. This includes not only the endowment funds but also auxiliaries and the sometimes surprisingly large amounts of agency funds. It is in the examination of this step that the college will discover to a great extent its ability to repay what it borrows. If, for instance, it finds that it can get 1 or even 2 per cent more from its endowment funds and that reorganiza-

tion of auxiliaries produces self-sustaining or even profitable results, it may not have enough on the credit side to balance a very distorted budget of the transition period, but by projecting this greater income over the next few years it could work off a sizable part of a bank loan.

PUT FUNDS TO BEST USE

For those colleges that have endowment funds a great deal of the problem of borrowing money is going to boil itself down to the question of how much extra endowment income can be obtained. It is quite probable that the banker will want to know something about the investment policy that covers the endowment portfolio. It is important, therefore, to get the best advice possible on this subject and to be sure that the greatest use is being made of these funds.

The "extra" income picked up by this fourth step should not be thrown in the next year's budgeted income but, I believe, should be impounded and pledged for loan repayment. The reason is mostly psychological. The existence of a loan tends to stress the emergency of a situation and to stabilize ambitions that otherwise would nibble away at good resolutions with regard to operating a program within resources.

The fifth step is by board action to pledge to the bank all future unrestricted gifts toward repayment of indebtedness or improvement of working capital.

The sixth step is to have the board committee on finance and budget meet with the comptroller, treasurer and probably the president of the college at least once a month during the period of the loan to see that budget controls are working. This, of course, presupposes that there are proper budget controls. My experience has been that the average auditor can suggest such controls and that they can be relatively simple but that monthly meetings are necessary to see that they are followed throughout the fiscal year.

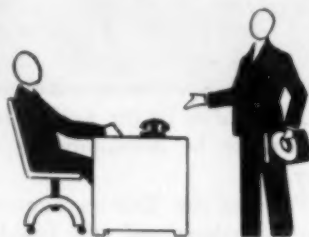
The seventh step is to separate borrowing requirements into two categories: operational (seasonal) loan and intermediate (reorganization) loan.

In addition to the need for financing a transition period between the old program and the new the college will, in all probability, find itself handicapped by lack of working capital sufficient to carry it comfortably over

between-season peaks. As a result, it has to do such things as miss discounts, carry large amounts of vendors' bills, or borrow from plant funds to pay salaries.

The operational loan conforms in large measure to the average commercial loan, and it therefore is easier to obtain than the intermediate loan. Its purpose is to even out the peaks and valleys of fiscal operations, and therefore care must be taken that no more is borrowed than can be provided for out of receivables. It is important to remember that the absence of hand-to-mouth discomfort sometimes leads to carelessness and poor management.

The last step is to call on the banker. With all the foregoing information he will have sufficient data to determine



if the college's requirements are within a safe margin in relation to its actual and potential resources. What is, of equal importance is the probability that with all the facts of the problem neatly set down the college will be able to appeal successfully for gifts or grants from foundations and individuals. People are more inclined today to give away money for definite programs; they are reluctant to give to any situation where the money seems to go down a hole.

TIMES HAVE CHANGED

It used to be said that the existence of an annual deficit gave a president a good talking point in looking around for funds for his college. Whatever merit that thought possessed in past days does not exist today. For one thing, the average individual is all too conscious of the burden of government deficit spending, and he is not particularly interested in other deficits.

Hardly two colleges have the same problems, but almost all of these problems have a common denominator, which is money. Of course, money alone will never guarantee a good educational program; the other resources must be present. On the other hand,

one cannot expect good educators to do a good job if they are continually nagged by lack of funds.

Generally speaking, the typical college finds itself in about the same position as a conscientious middle-class father squeezed between a fixed income on one hand and a growing family and rising costs on the other hand. If he tries to limit his spending to a fixed amount, the family will gradually starve. If he increases his spending from month to month, he will gradually go broke. The only sensible thing he can do is to move to another part of town where the standards of living are lower or get himself another job where the income is higher. In either event the situation calls for radical reorganization and cannot be remedied by tinkering. The same kind of radical thinking must be applied to most college problems today.

A lot of good radical thinking can be applied to the structure of most endowment funds. Too many such funds are invested in securities that do not carry out the purpose of the fund. The idea of safety of principal has been confused with the idea of liquidity to such an extent that some endowment portfolios look like commercial bank portfolios. As a consequence, income is considered in the nature of an interesting by-product, varying in amount from period to period, and not, as it should be, as the real problem of institutional investment.

The college will probably find that its endowment income is the key log to the whole problem of intermediate financing. Like the operational loan, the intermediate loan must also be based on something that is foreseeable. It cannot be based on the vague promises of a successful fund raising campaign or on the promise of turning over future gifts. If, however, the rate of return on investments can be increased by sound policy and good management, that is something tangible that can be looked forward to.

I do not mean to imply that all that is necessary is to substitute a list of dubious quality securities with high temporary income for the government bonds in the list. What I do suggest is that, first of all, the college keep as informed about what other funds are doing in this respect as it does with regard to the educational program of other colleges. If it finds that its income from investments is consistently at a lower rate than other funds, it should find out why this is so.

PUBLIC AND ALUMNI RELATIONS

are a winning combination. Peddie found this out early in the game and proceeded to integrate the two departments so that now theirs is a cradle-to-grave operation

IN THESE DAYS OF DROPPING ENROLLMENTS, failing endowments, and curtailed budgets, the importance of a carefully planned and executed program of public and alumni relations scarcely can be overlooked by secondary schools. Our bigger brothers and sisters, the colleges and universities of the nation, long have had such programs, but for many reasons the average preparatory school has neglected to profit from their experiences. Many are now realizing the error of their ways and hastening to make amends. For such institutions, the progress the Peddie School has made in the organization of such a program over a period of some dozen years may prove of value.

In establishing such a program Peddie found early in the game that public relations and alumni work to a large degree are interdependent, with a successful program in the former working for a stronger alumni group, and, of course, the stronger the alumni the more effective can be the public relations. The realization of this fact has brought about a complete integration of the two departments so that their work is done in the same office, many of the overlapping details handled by the same personnel.

With this concept in mind, Peddie established a complete cradle-to-grave plan utilizing the facilities of the entire office. Under such a plan a waiting list of alumni children and prospective students is inaugurated in order that all prospects may be kept informed through bulletins and school publications of school activities and developments prior to their entry and so that a carefully worked out program

DONALD W. RICH Jr.

Director, Department of Alumni and Public Relations
The Peddie School, Hightstown, N.J.

of educational guidance for each student may be set in motion.

With the student's actual entrance into Peddie the organization moves into high gear. First, from each application blank a visible binder activity sheet is made up listing all information on the student and parents. On the back of each sheet is space for recording all information pertaining to the student's scholastic, athletic and social activities during the year. Supplementing this, each student, as a part of registration, fills out a personal record card listing pertinent information and his hometown newspapers. On the back of this card is kept a record of all releases and stories sent to the press on this student.

These records, together with a geographic file listing students by cities, states and countries, are used for reference on all news releases. Additional information, including pictures, clippings, athletic biographical sketches, records and correspondence, is kept in a personal folder for each student.



This information provides a thorough and comprehensive picture of each student, and the writing of hometown releases becomes a relatively simple affair.

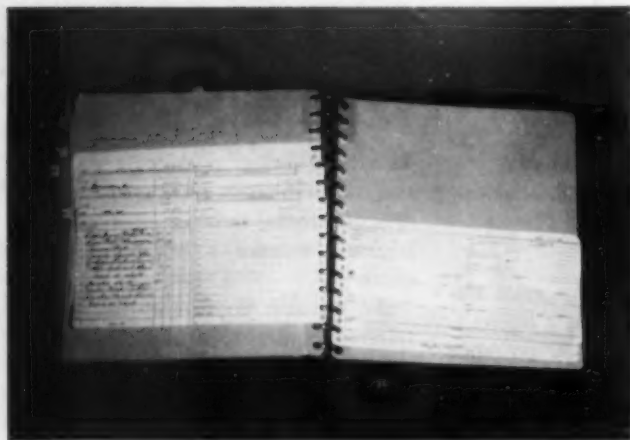
An equally important part of the system requires the maintenance of accurate address files. Plates are made up for all students and parents. Later, when the student becomes an alumnus, two or three new address plates are made. One is filed according to class, another geographically according to state and city, and one by colleges, with college address, if he has continued his education. The parents of the new alumnus are moved from present patron to past patron file. Naturally, the keeping up to date of these address records is essential for maintaining an effective liaison between the school and its alumni and patrons.

Upon graduation every student has his visible binder activity record placed, by class, in a permanent binder. To this is added a visible alumni activities sheet on which is kept all subsequent information, such as college activities, marital status, business, alumni participation, and financial contributions. A separate sheet is used for all war service records. The bulk of these data is supplied by personal letters received by the alumni secretary and other members of the faculty, by questionnaires sent out by the office, through visits paid by more loyal alumni, and effective liaison carried on by the class secretaries.

A master index is maintained in which a card with the name and class of each Peddie student is filed alphabetically, white cards for nongraduates,



		NEW	OLD
PARENT (GUARDIAN)	CLASS	ACADEMIC YR.	
BUSINESS	YEAR AT PEDDIE		
ADDRESS	FORM		
ALUMNI RELATIVE (YES) (NO)	ENTERED		
NAME	PREVIOUS SCHOOL		
CLASS	RELATIONSHIP	BIRTH DATE	
		ADVISER	
		ROOM	ROOMMATE
NEWSPAPERS			
TOWN		TOWN	
NAME OF PAPER	DAILY WEEKLY	NAME OF PAPER	DAILY WEEKLY
TOWN		TOWN	
NAME OF PAPER	DAILY WEEKLY	NAME OF PAPER	DAILY WEEKLY
FORMERLY OF:			
NAME	ADDRESS		



In these visible binders are kept the records on all students in school, together with an account of their activities and all other pertinent data.

orange cards for graduates. Such a list facilitates locating information concerning an alumnus when only his name is known.

The final step in shifting a boy from student ranks to alumni status is the combining of the information contained in his personal folder with all the records and correspondence of the other school administrative offices. This includes his original school application, complete scholastic record, guidance sheets kept by his advisers during his Peddie career, and all correspondence between school officials and the student's parents. These complete folders with all material arranged chronologically are then filed alphabetically and all future correspondence and reports are placed in these folders as they are received.

PROGRAM IS EVOLUTIONARY

While such a highly complex system is inevitable if the program is to succeed, it must be realized that it is merely the backbone for the whole public and alumni relations plan. This is the framework upon which a carefully designed program combining public and alumni relations to produce a favorable over-all public reaction to

the school is built. Such a program must be seen as evolutionary, long term in nature, and a step-by-step process that becomes beneficial only after consistent application of fundamental principles over a period of many years. Through it the school must be made the symbol of the best in education, and both the students and alumni must reflect the advantages of this education. Here is where an integrated office really becomes a necessity.

VARIOUS RELEASES

While each student is benefiting from an education, a succession of releases to his hometown papers recounts his progress. Supplementing these are releases of a general nature describing educational innovations at the school, curriculum changes, and events of general interest. Occasional magazine articles and booklets for public distribution also help to explain the story. A student press club covers athletic events for the local press, and every effort is made to assist visiting correspondents.

Of equal importance, student and faculty alike are taught the value of good public relations. An honorary

society of students greets all guests, helps them in locating officials or friends, and sees to it that every guest on campus is well taken care of. Town and gown relations are carefully nourished, and every effort is made to further a lasting and permanently friendly relationship. All school programs and policies are evaluated in the light of wise public relations so that every office and every official, as well as faculty and students, is cooperating in the building of a sound and lasting program of public relations.

ALUMNI MAGAZINE A MUST

Naturally, one of the most important publics for any school is the alumni. It is the group which largely determines what a school will be and which, through contributions of labor or money, can make or break the institution. An alumni magazine with articles on the school and reports on school activities is a must. Most of the space is taken up by class notes, compiled by class secretaries, who, of course, play a vital rôle in making the notes the most widely read portion of the magazine. These are supplemented by class letters and periodic bulletins slanted to make the individual alumnus

[illegible]

Upon graduation a student's records are transferred to the alumni visible records from the student binders. Here his alumni record starts and a progressive account of his doings recorded, including war record, contributions to the Loyalty Fund, and participation in alumni activities.



aware of his importance to the school and of the rôle he is expected to play.

Twice a year, in the spring and fall, alumni days are scheduled with invitations issued to all those who have been associated with the school. Special emphasis is placed on the attendance of reunion classes. In addition, special events, traditional rivalries, and school ceremonies are used to attract alumni for a visit. Organization of regional clubs with annual dinners and field trips by the alumni secretary and headmaster welds the alumni body into a group working for the school with the realization that its efforts are appreciated.

How has this elaborate and expensive system (the public relations and alumni work requires the full-time services of three directors and seven secretaries) proved its worth? In both tangibles and intangibles the department has demonstrated its value many times over. In good will, achieved by a loyal, interested and well informed alumni body, lie perhaps the greatest reward and service to the school. Ca-

capacity enrollments for the last 10 years are credited in some measure to the program. Today, the name of the school is widely known and is synonymous with a fine education.

The fruits of the department endeavors have paid off in many other ways. Largely because of its work the school now has an extremely active general alumni council of more than 200 members from all parts of the country. On this council are geographic and group representatives, as well as members from all the colleges where at least four Peddie graduates are in attendance. On these campuses Peddie college clubs have been formed and meet frequently during the year. A directory giving the name and address of every Peddie man in college is published and distributed.

In 1945 the Peddie Loyalty Fund was established by action of the general alumni council. With all alumni and friends of Peddie as potential contributors, the emphasis is not on the amount of contributions but rather on the number of contributors. Dur-

ing the first year of its existence the fund showed contributions totaling more than \$10,000 from more than 875 contributors. This year the Fourth Loyalty Fund has combined with the War Memorial Fund in a concerted drive to raise \$180,000 for the erection of a new chapel as a memorial to Peddie's 63 Gold Star and 1891 living veterans of World War II. It is expected that the goal will have been surpassed when the campaign officially closes.

An earlier drive for a new gymnasium brought in more than \$270,000 from loyal alumni and friends.

All these activities and accomplishments are just the highlights of Peddie's public relations and alumni plan. Undoubtedly, most schools maintain and support a similar program to a greater or lesser degree. For a progressive, growing institution we believe it is essential, and the more intensive and diversified services such a department may offer, in keeping with special circumstances, the greater the contribution to the school.

OFFICE PROCEDURE MANUAL

as developed at
Florida State University

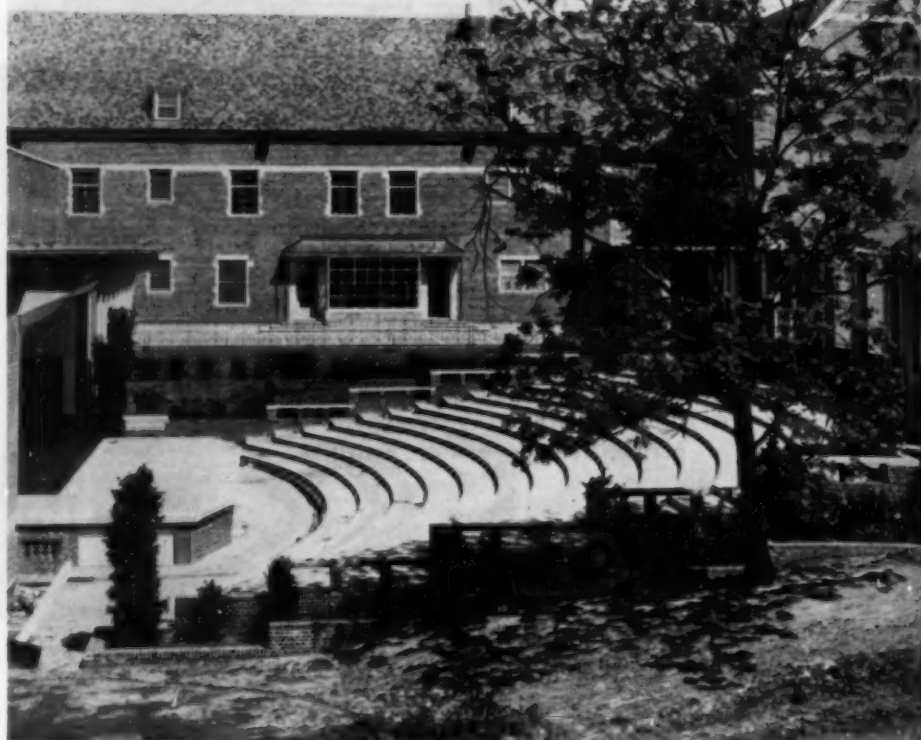
R. K. SHAW

Business Manager
Florida State University
Tallahassee

SOMEONE HAS DESCRIBED A UNIVERSITY business manager in these words: "A business manager to be successful must be courteous, diplomatic, shrewd; an expert jollier; of an equable temper, slow to anger; a Sherlock Holmes; up to date, good looking with honest eyes and a glad hand, a good memory, good cigars, good business judgment; the embodiment of virtue and with a good working knowledge of evil; he must understand bookkeeping, medicine, automobiles, banking, law and human nature. He must be a mind reader, a hypnotist, and an athlete. He must be acquainted with machinery of all types and materials of all kinds, and he must know the price of everything from a shoestring to a skyscraper."

Some of these characteristics had to be employed by the staff of the business office in writing and "selling" the Office Procedure Manual that Florida State University issued in 1948.

The university was confronted with a multitude of problems at the end of World War II. Originally the Florida State College for Women, with slightly less than 3000 students, the school grew in September 1946, with 10 days' notice, into an unofficial co-educational university with more than 3500 students when several hundred men were dropped on the administration. After the two schools, Florida State College for Women and Tallahassee branch of the University of Florida (for men), had operated for nine months, the state legislature passed its coeducational bill which, on May 15, 1947, merged the two organizations into Florida State University.



Outdoor theater adjoining Florida's new \$1,500,000 music building.

By 1948 the student body had grown to 5300 students, and the rapid expansion had brought in scores of new faculty members, most of them men. Problems multiplied in all departments, but particularly in the areas of office procedure and relationships between the faculty and the business office. Many of these men came from private colleges and universities that did not have requirements comparable to those at Florida State University. Because we were subject to the rules and procedures prescribed by the state comptroller, state treasurer, and state auditing department, it was necessary to make continual explanations of these rules to new personnel. In spite of all efforts, it was impossible for the majority of the academic personnel to understand the system and the reasons

behind it. Continual friction prevailed, all to the discredit of the business office.

The Office Procedure Manual was prepared and published in stencil duplicated form in an effort to overcome the difficulties encountered. It is the product of the coordinated thinking of several staff members, but principal credit for it goes to Abner Avirett, C.P.A., office manager, who originated the idea and supplied most of the "push" that carried it to completion.

In makeup, the manual is a simple statement of the steps necessary to accomplish many objectives connected with relationships of the university personnel with the business office. It is prepared on 8½ by 11 inch stock, bound with light-weight cover stock

and interleaved with copies of all the printed forms that the faculty members must understand and use. Since this manual was the first issued by the university, a foreword explained its purpose in order that faculty members and their secretaries would actually study it and use it as a guide.

Following the foreword was a statement justifying the necessity for using budget item numbers on all requisitions by explaining that such numbers provide the *only* way by which the business office can efficiently handle departmental accounts.

Discussions of specific procedures cover operation of the purchasing department, supply store, duplicating department, bookstore, laundry, pay rolls, student activity funds, student assistants, miscellaneous supplies, and last, authorized travel requisitions.

PURCHASING

Purchasing procedure is covered by a detailed discussion of the steps that must be followed in requisitioning supplies, establishing budgetary approval, receiving shipments, and in approval of delivery receipts. Interleaved with the explanation of procedures are copies of the forms used for requisitions, requests for quotations, purchase orders, and receiving reports. Following the purchasing department section, and related to it, are two sections covering the handling of miscellaneous supplies and supply store procedures. Supply store delivery receipts and order forms are included at this point.

The duplicating department has facilities for mimeograph, multigraph and multilith work, in addition to services in punching, binding and photostating. A section of the manual is devoted to a description of the department and its procedures and includes sample copies of its printing order and delivery receipt forms.

BOOKSTORE

In addition to textbooks, school supplies, cold drinks, and novelties, the bookstore stocks all office supplies that ordinarily are needed by offices and academic departments. The faculty necessarily has many contacts with the bookstore and is dependent upon its services. As a budget control, only one or two designated staff members from each academic department are authorized to requisition supplies from the bookstore. The procedure for such requisitions is described in the manual,

and a copy of the requisition form is included.

The laundry is primarily to serve the students, but service departments use its facilities for bed linen, table linen, uniforms and dry cleaning draperies. Although the operation and bookkeeping are entirely of an internal nature, complete records must be maintained for budget control and for remuneration of the laundry. The page on the laundry carries an explanation of the necessary records.

STUDENT ACTIVITY FUND

One of the most difficult funds to administer effectively is the student activity fund because it involves not only the business office and faculty but also the numerous officers of student organizations. The manual has a complete description of the system of administering this fund and places special emphasis on the approval of the faculty adviser, which must be filed, with the student officer's signature, on all items of expenditure.

One great difficulty is the propensity of students to make small cash purchases without obtaining receipts that must be used if the student is to be reimbursed. The problem receives careful attention, and following it is a copy of the pay-out voucher which is used for cash items.

PAY ROLLS

Pay rolls and student assistants are discussed in two sections, but the problems of the two subjects are actually both pay roll problems. No one is officially on the pay roll until his recommendation of appointment has been signed by his department head, approved by the president of the university and the board of control, and finally reported by the president's office to the pay roll department. The procedure covering student assistants is identical with that involved with other employees with one exception, namely, that a different recommendation form is used which requires approval of the director of student personnel. Both forms are interleaved and fully explained.

The student assistant pay roll requires a monthly time sheet which the department head must complete, sign and send to the pay roll department. One problem that always arises among new employees is the result of their failure to understand the necessity for signing a salary requisition every month. When the employee receives

his check on the last day of the month, a requisition covering the next month's check is attached to it. The employee signs the requisition and turns it in at the pay roll office.

TRAVEL

The problem that causes more misunderstandings than any other single one comes up in proper handling of authorized travel reimbursement. The university does not advance funds for travel but requires members of the personnel to travel at their own expense and subsequently requisition reimbursement. Trips must first be detailed on a travel request that goes first to the president for approval and then to the auditor in the business office, before the trip is made. The auditor issues a transportation request, which is used instead of money to purchase tickets on all common carriers.

After the trip is completed, the employee turns in a sworn affidavit, giving per diem charge, mileage (if trip is made by car), or signed copy of transportation request (if trip was by common carrier), and any additional expenses that may have been authorized beforehand, such as taxi fare, telephone and telegraph charges. These affidavits are then verified by the auditor, sent to the president's office for final approval, and then to the state for a warrant of reimbursement.

The final section of the manual gives a description of the necessary details for travel reimbursement and concludes with five specimen affidavits, made up to cover the five possible methods of travel and reimbursement.

The Office Procedure Manual has been in use for a year and, as was anticipated, many improvements in text have been suggested. In spite of its shortcomings, it has proved to be a valuable aid in clarifying business office problems and in providing a guide for those faculty and staff members who are sufficiently interested in their work to study and use it.

Because the manual has demonstrated both its value and its deficiencies, work is already in progress on a revision for distribution to all department heads, deans and executive officers. The revised issue is not expected to be a panacea for all problems. However, continued revision to fit changed conditions and new emergencies will enable the business office to stay at least one jump ahead of our most frequently repeated difficulties.

THE CONTROLLER

is much more than a chief accountant

LLOYD MOREY

Comptroller
University of Illinois

IN 1938 THE FINANCIAL ADVISORY service of the American Council on Education surveyed the subject of "College and University Business Organization" and issued its findings in a bulletin of that title. It found that in small and moderate sized institutions the titles of business manager and treasurer were commonest for the chief business officer. In large institutions, particularly public institutions, the title of controller was commonest.

It made this comment about the title of controller:

"The function of the controller is to report and interpret operating conditions and functions without bias. He is not a "chief" business officer of a college or university, for since the essence of his position is the objective and unbiased preparation of reports, there is required a freedom from administrative responsibility for business activities that connotes the existence of an administrative officer of coordinate rank. The title of controller well might be used only when the authority and responsibilities of the official are limited to the functions outlined in this chapter."

Then followed an outline of the duties that properly belong to the controller, including those relating to budget preparation and control, accounting records, financial reporting, internal audits, control over collections, disbursements, property inventories, and other similar matters.

In the intervening years there appears to have been a considerable change in trend of organization in the larger institutions. The title of controller has become less frequent than the title of general business officer. In quite a few institutions, the title is retained but is attached to a sub-

ordinate officer responsible to the general business officer. The controller in such relationship appears usually to be responsible for the functions aforementioned. However, his responsibility often is to the chief business officer, in which case he does not appear to have an independent accountability.

This trend is distinctly different from that in the industrial world. A survey of the situation in this respect has been made recently by Dean J.



Hugh Jackson of Stanford University and published in "The Comptroller: His Functions and Organization" (Harvard University Press). He has summarized the situation as follows:

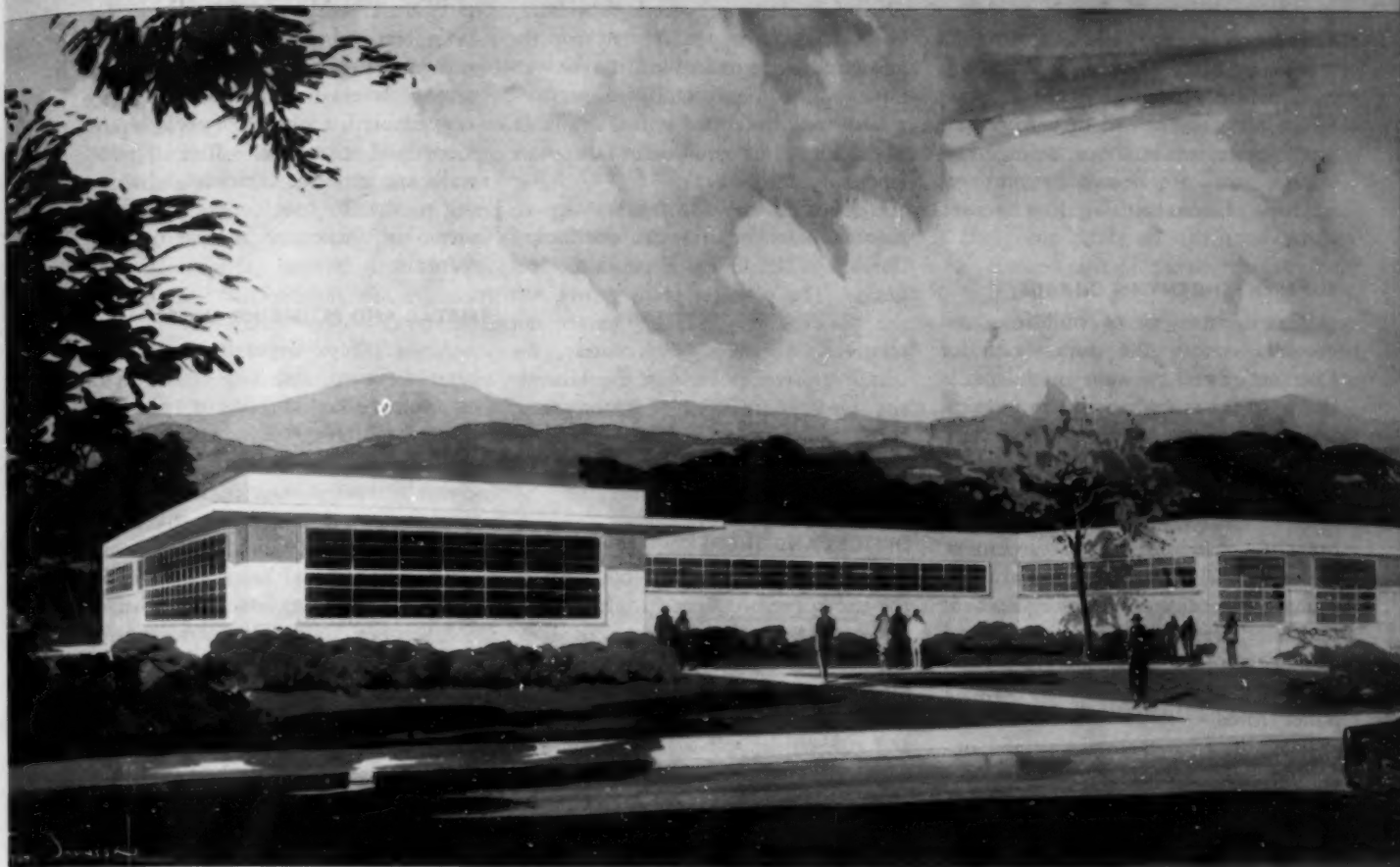
"In summary, the organization of the controller's department in progressive, well managed companies is such as to recognize the essential character of the controller's work and to place him on an administrative level that will enable him to serve effectively both the policy making group and the chief administrative and operating levels of top management. He is generally recognized as one of the major administrative executives of his company, responsible to the board of directors either directly or through the president. In several notable instances he was found to be both responsible to and report-

ing to the board of directors in the performance of his major functions, while in the ordinary day-to-day conduct of his office he functioned under the supervision and direction of the president. It appears that this will probably become the general trend in controllership in the years immediately ahead."*

This appraisal raises a question about the tendency in educational institutions to employ the title of controller for a subordinate officer. It is obvious that in such a capacity an individual cannot function in the manner outlined by Dean Jackson. A true controller must be in a position to report and comment objectively and independently on every financial operation. To do this, he must be able to report independently, even though administratively under some other officer. The latter responsibility preferably should be to the executive head of the institution rather than to an officer who is himself in charge of large and varied operations. If he is not to have such accountability and responsibility, the appropriate designation for his position would seem to be chief accountant or some similar term and not that of controller in the proper meaning and scope of that office and title.

The position of controller should be one of a high level of responsibility and dignity. It is so recognized by management experts, writers on the subject, and by the Controller's Institute of America. This status generally is found in industrial organizations. A similar status should prevail in educational institutions.

*See also Bradshaw and Hull, Comptrollership in Modern Management, 1949, Richard D. Irwin, Inc., 3201 South Michigan Avenue, Chicago.



CORPORATION YARD BUILDING - UNIV. OF CALIF. - LOS ANGELES CAMPUS - WALTER WURDEMAN - WELTON BECKETT

SERVICE BUILDING at the University of California Los Angeles campus

WITH THE COMPLETION OF A NEW \$250,000 building, it is believed that the University of California, Los Angeles campus, now has a modern Corporation Yard that compares favorably with that of any university in the United States.

In this building are housed the offices of the superintendent of buildings and grounds, the carpenter shop, electrical shop, plumbing shop, paint shop, and mechanics shop, together with facilities of the purchasing agent, the central stockroom, receiving department, and the central garage.

The new building is a one-story reinforced concrete structure arranged

in the shape of a letter "H," with approximately 14,400 square feet of working space. An open air carport housing automobiles and equipment occupies a site approximately 35 feet to the north.

The structure is of contemporary design with a low parapet roof wall and a liberal proportion of the exterior concrete walls dedicated to horizontal fenestration. Low canopies over the heads of the sash present a pleasing architectural feature and at the same

time serve as awnings. In the case of the wide 8 foot canopy at the north court, additional outside working space is obtained by the overhanging shelter. The structure is purely utilitarian, and the simple functional appearance reflects the use for which the building was designed.

Floor and exterior walls of the building are reinforced concrete. Composition roofing is laid on 2 inch wood sheathing supported on trussed steel rafters. The exterior is smooth con-

GEORGE F. TAYLOR

Business Manager
University of California at Los Angeles

crete poured against dressed plywood forms. The garage doors are of the aluminum overhead type. Floors in shops, storerooms and garage are exposed concrete. Walls in office and public areas are painted in rich colors with white acoustical board ceilings. Office areas are heated by a forced air gas furnace, while shops, storage and garage areas are heated by unit gas heaters. Fluorescent lighting is used throughout the building.

SUPERINTENDENT IN CHARGE

The department of buildings and grounds, under the supervision of Laurance Sweeney, superintendent, is the practical custodian of the physical properties of the university. It is comprised of the superintendent and members of his staff, who direct the activities of the personnel in the various branches of maintenance—carpenters, electricians, mechanics, painters, plumbers, gardeners, power equipment operators, tree trimmers, pest control operators, truck drivers, laborers, steam operating engineers, janitors and a police force.

In addition to maintaining and operating the buildings and various

plant functions, the services of the skilled craftsmen are used in making alterations to the physical plant and also for designing and fabricating special laboratory equipment for the academic departments of the university. With these combined services, a large and diversified staff is available, and shops and equipment are more efficiently utilized.

Too often the maintenance department and its facilities are overlooked during a building expansion program. The physical plant grows, but the building service facilities are not relatively expanded. Fortunately, the administrative officers of the University of California have demonstrated foresight in providing this modern concrete building, the first unit on the new Corporation Yard site.

OFFICES AND SHOPS

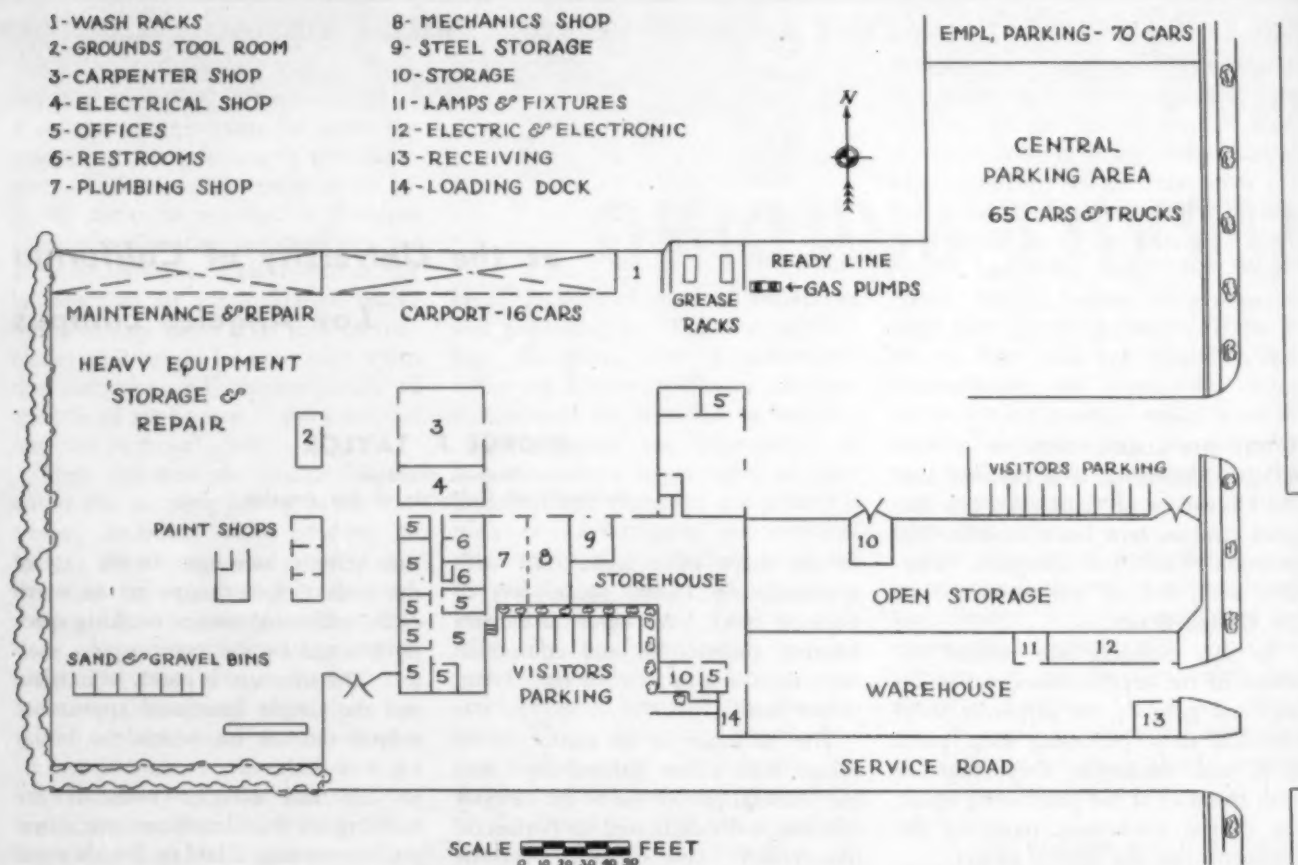
The building provides office space for the superintendent's staff; a combined mechanical and plumbing shop; a well equipped electrical shop; a carpenter shop with space for a variety of power equipment, benches and cupboards, and a large employees' washroom with showers and lockers.

Everything possible has been done for segregation of mechanical classifications, yet a well coordinated and integrated working organization has been retained. Windows in outside walls have been placed high above cabinet levels so that full wall space is available for storage of tools, equipment and materials. Interior side-walls are used for cabinets and shelving to the 16 foot ceiling height by virtue of suspended mezzanine platforms.

METAL AND PLUMBING SHOPS

Metal Shop. Separate areas have been assigned for (1) lock repair equipment, key duplicator, and key control cabinets; (2) sheet and general metal working machines; (3) grounds tools maintenance, power mowers, tractors and the like, and (4) welding and fabrication of metal work assigned to the working space under the building overhang shelter.

Plumbing Shop. This is segregated for (1) maintenance of automatic and manual sprinklers, space for special tools, parts and testing equipment; (2) steamfitters, and (3) general plumbing. (Portable lock-up tool kits



Plan of the Corporation Yard building and the surrounding area.

have been provided and are charged out to each of the plumbers.)

ELECTRIC AND CARPENTER SHOPS

Electric Shop. In this shop are located the transformer vaults and the distribution board that supply the power and light for the entire building. The mezzanine in this room is equipped with ceiling height sections of stock bins. The shop itself is sectionalized into four parts, namely, electronics, general testing, machine, and supervision and planning.

The electronics section is equipped to test, service and calibrate all types of electronic instruments and equipment that are in use on the campus. The general test bench has a custom built test panel designed for testing single-phase and three-phase motors, series load testing, fuse testing, and so forth. It also is equipped with special outlets for testing impulse, clocks and program equipment and has combination A.C. and D.C. output voltages, as well as a built-in multipurpose meter. The machine section has a small pedestal grinder and buffer. The bench for this section has its own tools mounted within the compartments of the bench.

The supervision and planning section contains a drafting table, complete with drafting machine, blueprint cabinet, desk and files that house a complete inventory and control system for all of the electrical building utilities and equipment on the campus.

Carpenter Shop. This shop has doorways from driveways on three sides of the building. These provide flexibility for the receipt and delivery of lumber as well as facilitate the movement of material to and from the various machines in the shop. The machines are so located that lumber can readily be fed into a machine from one door and then taken out by another. Strategic placing makes it possible to operate five different pieces of woodworking machinery without one interfering with the other. Each carpenter is provided and charged with a complete set of tools. Lock-up cabinets are provided for security of tools in the shop while not in use.

Two temporary buildings are used for the paint department, and a shed provides space for tools for the grounds department.

New supplies are readily available from the central storehouse operated by the purchasing agent. The store-

house is adjacent to the shops in the new building. Likewise, automobiles and trucks are available from the central garage.

The other half of the area of the building is devoted to stockroom, receiving department, and the central garage, all under the direction of David L. Wilt, purchasing agent for the Los Angeles campus.

The stockroom is like a large department store. It maintains approximately 8000 separate items and does a



\$260,000 a year business. Academic, research and maintenance departments on the campus draw supplies from this central purchasing agency. It also serves the Santa Barbara, La Jolla and Riverside campuses.

Buying in large quantities allows the university to take advantage of discounts ranging from 10 to 50 per cent, thus effecting economies not possible if the purchases were made by the individual departments.

The central receiving department for the entire campus is located at the east end of the warehouse. All incoming shipments are routed through this office. A copy of each purchase order is sent to the receiving department, where it is filed alphabetically by the vendor's name to await delivery. Small and medium sized packages are delivered to the receiving department and then distributed by truck. Materials withdrawn from the storehouse are also distributed by the same truck, so there is no duplication of work. Larger shipments, such as machinery, building materials, and furniture, are directed to their final destination after stopping at the receiving department. When necessary, a member of the receiving department staff accompanies the vendor's truck.

The new building was carefully planned so that incoming shipments arrive at the receiving department, go to the adjacent warehouse, and from there to the shelves in the storehouse area; from that point they are distrib-

uted to the various campus users.

The main storehouse dispersing section and office are located between the warehouse and the maintenance shops. The storehouse stocks in quantity and distributes as needed to academic, research, administrative and maintenance departments. This arrangement provides one continuous directional flow of materials similar to that which is found in a well organized manufacturing plant.

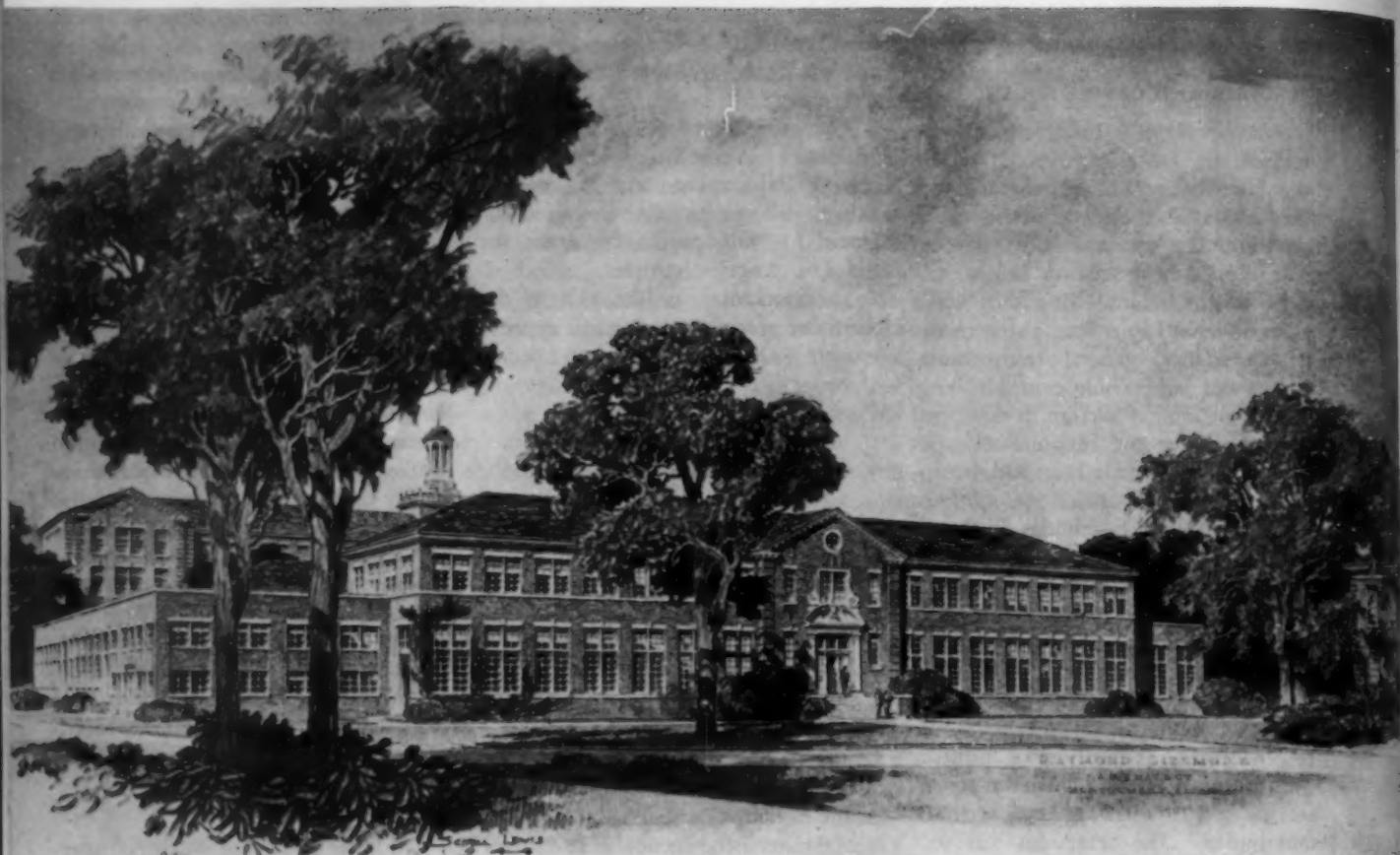
At one side of the warehouse there is a paved, fenced area in which inflammable liquids, such as kerosene, benzene, paint thinner, and denatured alcohol, are stored in drum quantities. Empty drums from all operations also are stored in this yard. An open-air pipe rack provides facilities for quantity purchases of galvanized, black and sewer pipe in various sizes. This outdoor yard is also used for the accumulation of salvage materials from all departments until sufficient quantity has been received so as to make it worth while to conduct a sale.

CENTRAL STOREHOUSE SAVES

The plan of having a central storehouse supply the maintenance shops as well as other departments from one stock is a money saver in many respects. It has been found that many materials used by the campus departments often are called for by the maintenance department. Plumbing fittings, paint and hardware items, which normally go to the maintenance department, are occasionally required by the academic and research activities. This also saves extra requisitioning through the purchasing department. The reduction in the purchasing department load, by having a well organized storehouse, is as important a saving as are the discounts obtained by purchasing in large quantities.

The central garage also saves money for the university. Instead of being owned by individual departments, the 47 passenger cars and 34 trucks are pooled in this central agency and are available on a rental basis. The records indicate that this equipment is in use 85 per cent of the time; as a result, fewer cars and trucks are needed.

The Corporation Yard building is planned so that it can be enlarged as needed in the future. When this campus' \$38,000,000 postwar building program is completed, the Corporation Yard building will be centrally located as far as most other campus buildings are concerned.



ENGINEERING LABORATORIES

designed for Alabama Polytechnic Institute

JOHN JENKINS WILMORE ENGINEERING Laboratories, to be known as Wilmore Laboratories, was designed for Alabama Polytechnic Institute by Sizemore and Campbell, architects of Montgomery, Ala., in close cooperation with the campus planning committee and a committee of the engineering faculty. It was completed in September.

Wilmore Laboratories Building is Georgian in character and is connected to Ramsay Hall by a covered passageway. Ramsay Hall is essentially a classroom building for the school of engineering; therefore, the new building consists largely of laboratories, offices, storerooms, instrument rooms, and workshops.

All of the principal laboratories are on the first floor to enable easy load-

SAM F. BREWSTER

Director, Department of Buildings and Grounds, and Chairman, Campus Planning Committee
Alabama Polytechnic Institute
Auburn, Ala.

ing and unloading of equipment and materials. The building is one story in height with two-story sections on the north and south sides. It measures 258 feet from east to west and 208 feet from north to south.

INSTRUCTIONAL LABORATORIES

That portion of the building occupied by the department of aeronautical engineering consists essentially of a structures laboratory, an airway traffic control laboratory, and a meteorological laboratory. These three laboratories are primarily for instructional pur-

poses. In addition, there are a small service shop, individual research laboratories, and offices for persons engaged in research.

The A.C. and D.C. laboratories and the communication section of the electrical engineering department occupy other quarters, but in the new building there are an industrial electronics laboratory, classroom, shop, photographic darkroom, and offices. There is also a photometric laboratory. These laboratories are equipped with thoroughly modern and representative equipment in their respective fields.

Civil engineering has a sanitary engineering laboratory that contains research and instructional facilities in the fields of sanitation, chemistry, bacteriology and sanitary engineering. Surveying instrument rooms house all

surveying instruments and equipment. The hydraulics laboratory contains an impulse turbine, numerous pumps, a water barometer, numerous types of weirs, orifices and other measuring devices.

The mechanical department has large laboratories for internal combustion engines, steam and gas engineering, and materials testing. In addition, there are three research laboratories.

Facilities for chemical engineering include the unit operation laboratory, chemical technology laboratory, shop,

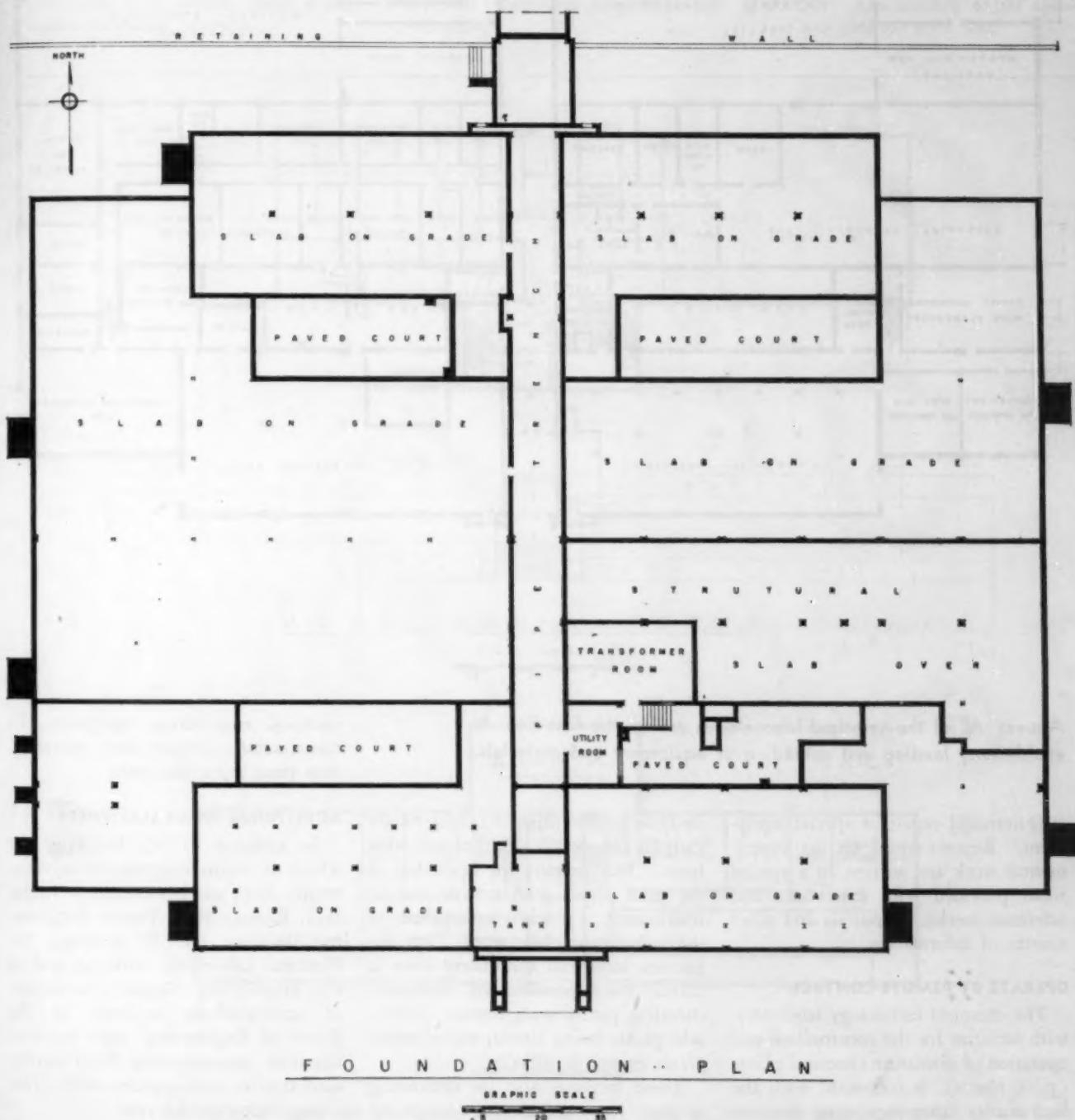
report writing room, fuels laboratory, instrument laboratory, metallography laboratory, design room, six research laboratories, together with offices and other rooms. These laboratories are modern in every respect and are available for undergraduate instruction in chemical engineering.

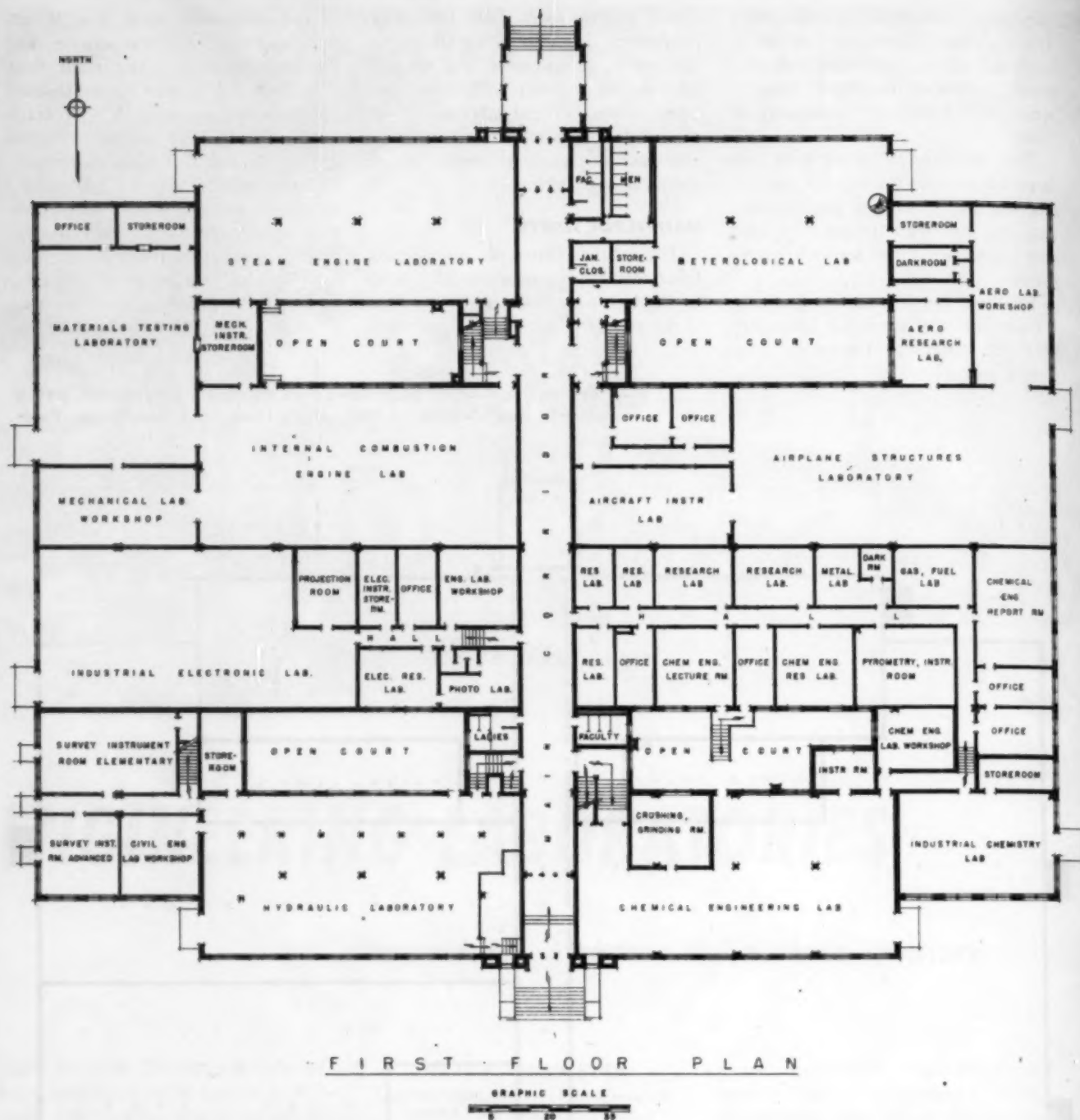
MAIN FLOOR SLOPES

The main chemical engineering laboratory (unit operations lab) is 40 by 80 feet with head room over half of the area of 30 feet for the operation

of tall equipment, such as stills, absorbers, humidifiers, evaporators and similar equipment. The main floor slopes toward trench drains covered by removable gratings. A 3 ton crane travels along a track supported on the ceiling for lifting of heavy equipment. Services include 110 A.C., 200 A.C., steam, air, gas and water. Fifty complete changes of air are provided per hour. A separate room is provided with special ventilation facilities for the study of crushing and grinding. A shop is located near by for con-

Below: Foundation plan shows slab on grade, pipe trench, paved courts, and location of tank, utility room, and transformer room.





Above: All of the principal laboratories are on the first floor to enable easy loading and unloading of equipment and materials.

struction and repair of special equipment. Reports based on the experimental work are written in a special room provided with handbooks and reference works, periodicals and other sources of information.

OPERATE BY REMOTE CONTROL

The chemical technology laboratory, with facilities for the construction and operation of miniature chemical plants (pilot plants), is connected with the instruments laboratory some distance

away by several pipes at ceiling height carrying connecting electrical and other lines. This permits the operation of the pilot plants with remote control instruments (panels) established in the instruments laboratory. This duplicates industrial conditions since it allows the operation of miniature chemical plants with remote control, said plants being similar to industrial plants except in capacity.

These facilities also are interesting in that they permit the design of

chemical engineering equipment, its construction (shops) and operation, thus completing the cycle.

ADDITIONAL SPACE ELSEWHERE

In addition to this building, the school of engineering has offices, classrooms, shops and laboratories in Broun Hall, Ramsay Hall, Textile Engineering Building, the "L" Building, the Electrical Laboratory Building, and in the Engineering Shops. Enrollment of undergraduate students in the School of Engineering, since the war, has been approximately 2000 during each quarter, and approximately 2600 during each calendar year.

CONSTRUCTION DETAILS

GENERAL DATA: Wilmore Laboratories Building consists of 34 laboratories, 5 laboratory workshops, 26 offices, 3 lecture rooms, and 18 rooms for storage, dark-rooms, blueprinting, etc.

CONSTRUCTION: Foundations and floors, reinforced concrete; roof framing over one-story portion, long span bar joist; two-story portion, steel framing with pre-cast decking over all roof areas. Roof, built up over one-story portion and asbestos shingles over two-story portion. Exterior walls, brick masonry; interior partitions, brick and tile; windows, steel projected type; entrance doors, bronze; stairs, reinforced concrete.

FLOORING: Laboratories, concrete with floor hardener; offices, lecture rooms, and corridors, asphalt tile; toilet rooms, ceramic tile.

CEILING: Laboratories and storerooms, concrete painted; offices, corridors and lecture rooms, gypsum plaster.

WALLS: Laboratories and storerooms, pointed masonry painted; offices, corridors and lecture rooms, gypsum plaster.

HEATING: Radiators of convector type; unit heaters in large laboratories. Steam for heating supplied from central heating plant.

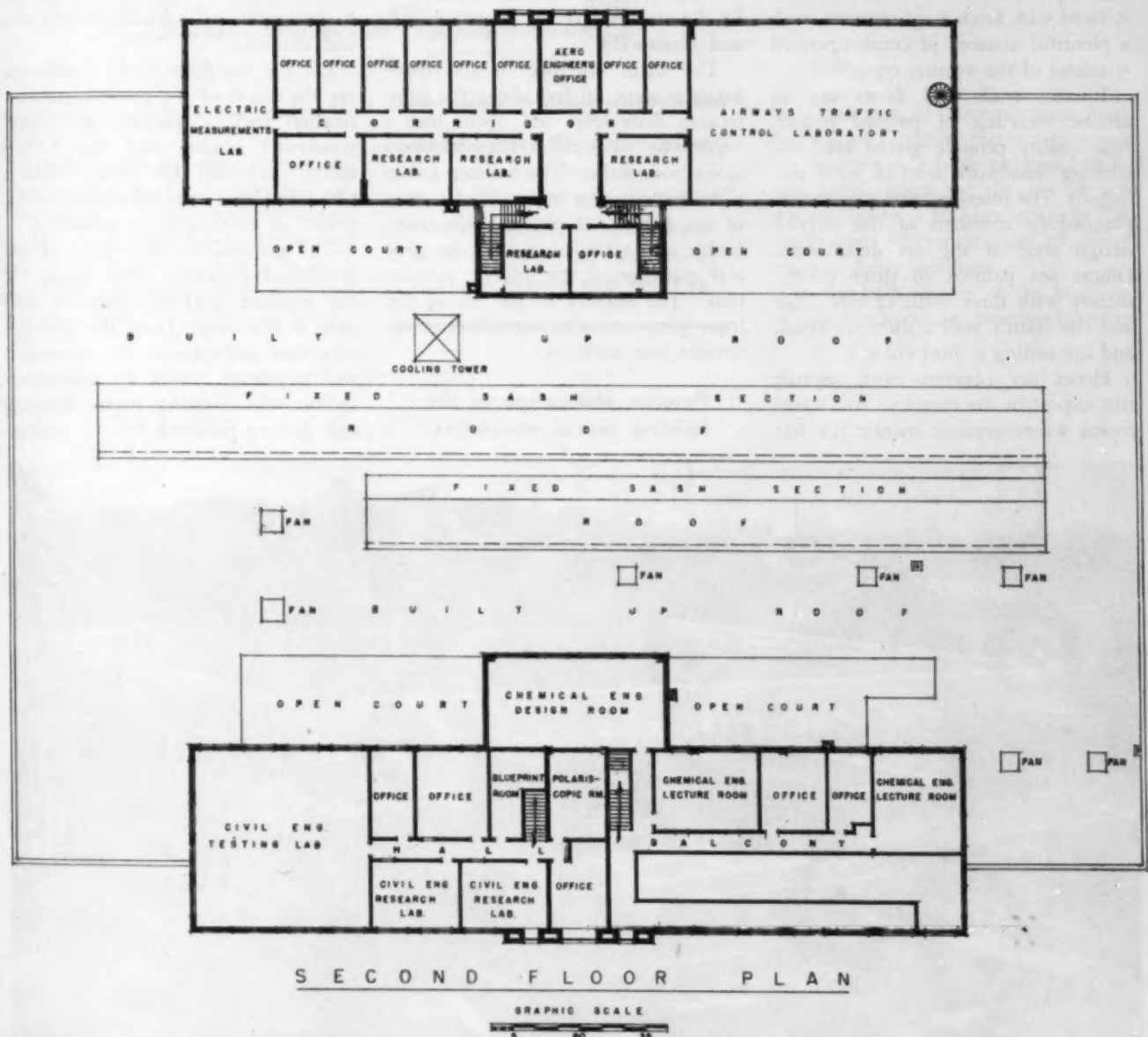
LIGHTING: Continuous strip fluorescent throughout.

TRANSFORMERS: Three 100 and three 250 kva.

SPECIAL FEATURES: Stationary laboratory equipment built in; 38 foot standpipe, including circulating pumps and tanks, in hydraulics laboratory; movable metal office partitions in portion of second floor; covered passage connecting existing engineering classroom building with new laboratory building; acoustical wall treatment.

COST: \$958,000, not including land or fees.

CAPACITY: Approximately 67,000 square feet and 1,050,500 cubic feet.



The building is one story in height with two-story sections on the north and south sides.

University of Florida's new \$1,650,000

GYMNASIUM

D. K. STANLEY

Dean, College of Physical Education
Health and Athletics
University of Florida
Gainesville

FLORIDA GYMNASIUM, A MAGNIFICENT counterpart to the University of Florida's football stadium, known as Florida Field, was completed last spring at a cost of approximately \$1,650,000.

The architecture is semi-Gothic. The framework is structural concrete with steel trusses supporting the awesome span of the roof. The exterior is faced with brick and limestone, with a plentiful number of crank operated windows of the awning type.

Interior walls and floors are an artistic blending of painted plaster, best quality ceramic glazed tile, and striking woodwork trim of solid mahogany. The interior color scheme was planned by members of the interior design staff of the art department. Offices are painted in three colors: usually with three walls of one color and the fourth wall a different color, and the ceiling a third color.

Floors are concrete with asphalt tile, except in the corridors and wash-rooms where ceramic mosaic tile has

been used. Ramps leading to the grandstand seats have a nonskid content. Lobby, corridors and library are finished with acoustical tile ceilings.

The plan of the building is actually in three sections: (1) the headhouse, made up almost entirely of offices, (2) the physical education and intramural gymnasium, and (3) the intercollegiate gymnasium surrounded by dressing rooms, equipment rooms, and classrooms.

The main entrance to the headhouse is some 10 feet above the gymnasium floor level and opens into a foyer which has ticket sales windows along both walls. The hallway to the right leads to the offices of the dean of the college of physical education, health and athletics and of the general manager of the athletic association. The hallway to the left of the foyer gives access to the offices of intercollegiate athletics.

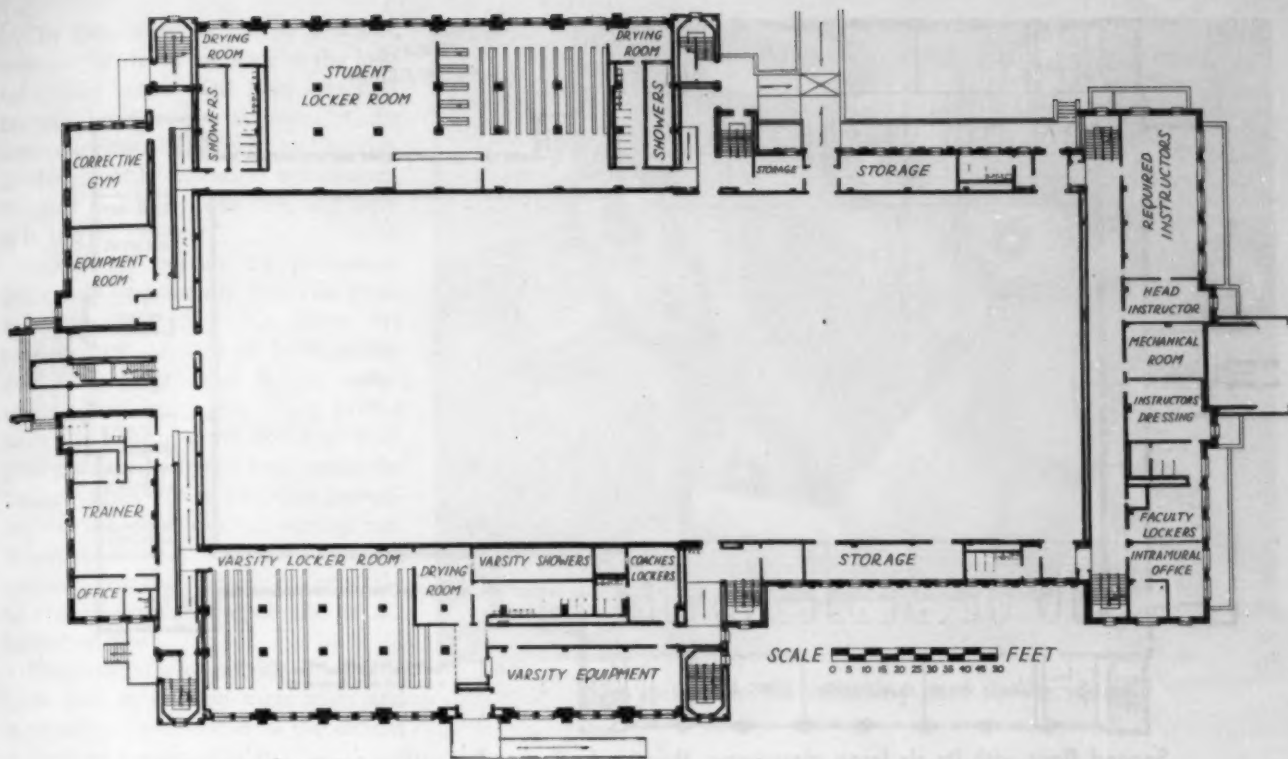
Progress photograph as the building neared completion.

On the same level and along the sides of the building, under the permanent grandstand seats of the intercollegiate gymnasium, are six large classrooms, two men's toilets, and two women's toilets. At the extreme rear of the building, still on the same level, are the 200 seat theater, a large room for instructional boxing and wrestling, and a clubroom for students majoring in physical education, health and athletics.

On the top floor of the headhouse are the offices of the professional curriculum staff, a spacious and many-windowed library, and the F-Club lounge provided for those students who have been awarded varsity monograms in intercollegiate athletics.

The gymnasium floor level of the headhouse provides office space for the required physical education staff only a few steps from the physical education gymnasium, the intramural and recreation offices, an instructors' shower and dressing room, dressing and shower facilities for the univer-





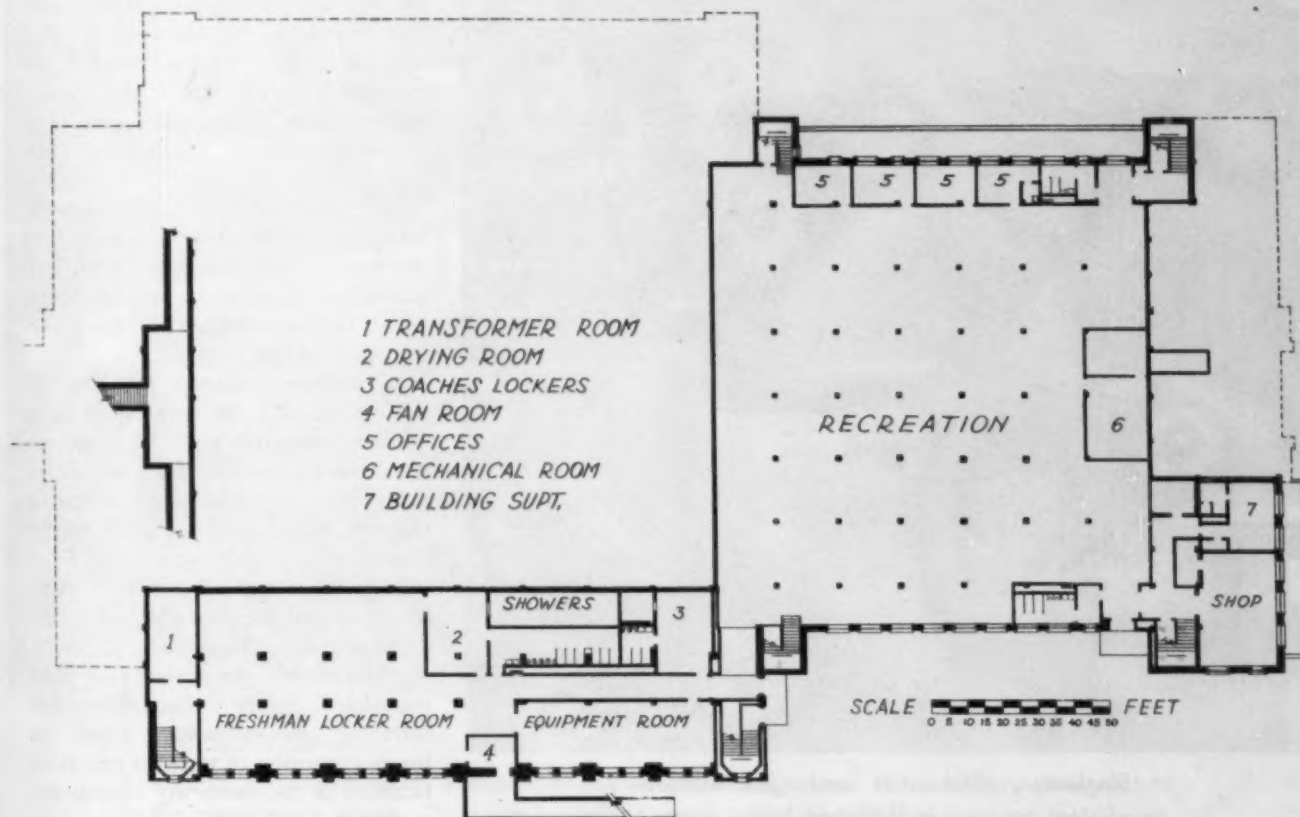
sity staff, and ample storage and toilet facilities.

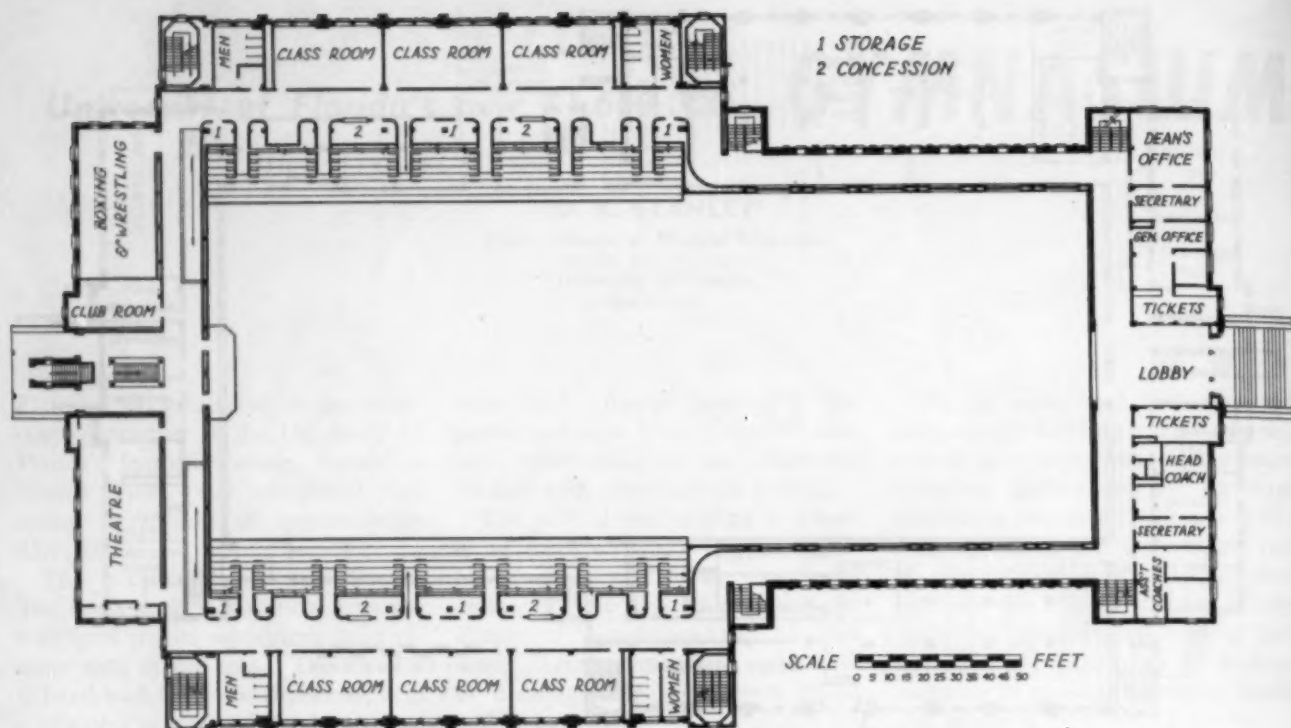
The large varsity locker room, complete with a roomy equipment cage, 24 showers, a drying room and toilets, is also at the same level on the west side of the building, less than 50 yards from the football practice field and not more than 100 yards from Florida

Above: First floor plan showing gymnasium floor surrounded by varsity and student locker rooms and offices. Below: Basement plan showing location of various rooms and offices.

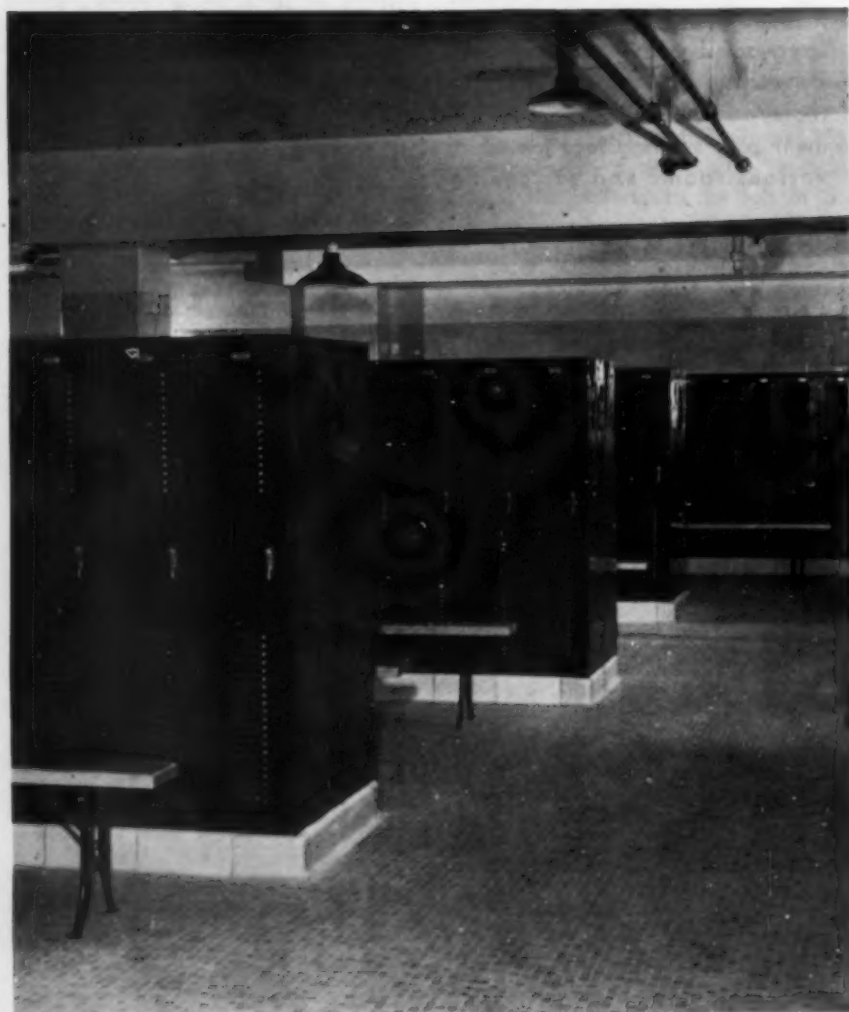
Field, the site of intercollegiate football games. Opposite the varsity dressing quarters is a huge physical education locker room for the use of the student body. It also contains an ample sized equipment cage, 39 showers, and toilet facilities.

In the back section of the building at this level are the training quarters





Second floor with its six large classrooms, theater, boxing and wrestling room, and clubroom.



Single-tier, double-tier and golf lockers of steel are used in the seven locker rooms.

for both varsity and freshman athletics, and a spacious and especially equipped workroom for use in the corrective and adapted physical education program.

The full sized basement, which is actually on the football practice field level on the west side and one story underground on the east, offers a 119 by 114 foot utility floor space to be used mostly as an inclement weather recreation area. On occasions it may be used for club dances or as sleeping quarters for visiting teams or educational groups visiting the campus.

The basement level also houses the freshman locker room, a duplicate of the varsity room one floor above, four individual offices, and a service center, which includes quarters for the superintendent of the building.

A walkway connects the back of the building to the university's large outdoor swimming pool. The only entrance to the building from the swimming pool is by way of a special staircase from the pool level to the basement level of the building. From that point a special nonskid ramp leads up to the physical education dressing room. This route for swimmers eliminates the necessity of passing other traffic over these always wet corridors and stairways. Plans for future expansion of physical education facilities at the university include enclosing the swimming pool.

The gymnasium is 106 by 270 feet, with 27 feet from the floor to the lowest ceiling beam. The floor area may be considered in two sections: *A*, the intercollegiate basketball auditorium, *B*, the physical education gymnasium. Floor *A* is 106 by 148 feet, and floor *B* is 106 by 122 feet.

Section *A* contains the permanent basketball grandstands that rise from a balcony located 9 feet above the playing floor. Access to these permanent seats is provided by six vomitories. Telescopic gym seats extend from the balcony level down to floor level and may be folded back under the balcony when not in use, thus providing the full floor area for activity use. When additional seats are needed, movable type telescopic gym seats may be erected across the open end of the basketball floor.

The floor area of section *B* extends from wall to wall on three sides and is merely a continuation of the section *A* floor on the fourth side.

The combination air conditioning and heating system serves all offices and locker rooms of the building, while the ventilation system serves the gymnasium-auditorium area.

When used as a single basketball court for intercollegiate games, the



Wire baskets in the swimming pool shower rooms.

auditorium seats in excess of 6500 spectators. When the full floor area is used, the auditorium affords the only indoor meeting place capable of seating the entire student body. On these occasions the capacity will be in excess of 10,000. Designed to afford the

utmost in efficiency in student registration and processing, the building on occasions will be used for these purposes, and also will be used as headquarters for many of the various educational groups that convene on the university campus throughout the year.



Telescopic gymnasium seats, accommodating an additional several thousand, are seen opened in the photograph above. They can be folded back under the balcony when not in use.



GROUND FLOOR CAFETERIA

CAFETERIA

completes its first year while, overhead,

construction work on the residence hall proceeds

THOMAS C. MORELOCK

Director of Public Information
University of Missouri
Columbia

THE UNIVERSITY OF MISSOURI DID not have any major difficulties in operating a modern student cafeteria in the newly completed ground floor of a residence hall while construction proceeded overhead on an additional three and a half stories of the building.

More than 300 women students were fed three meals daily in the dining room last spring while several hundred construction workers swarmed over the outside of the building setting up forms, pouring concrete, laying brick facing with limestone trim, and installing plumbing, heating and lighting facilities for the residence hall. Protective canopies were constructed over the entrances to the cafeteria so that construction work did not interfere with use of the dining facilities.

The University of Missouri is also constructing three new units of a men's building to connect with Defoe Hall, its present residence hall for men, but there the new construction is adjacent

to, rather than over, the present building.

Construction of the cafeteria section of the ground floor of the women's residence hall was completed and put into use last fall as an emergency measure to provide critically needed dining facilities for freshman women students, who are required to live in university controlled housing under a new regulation that became effective last year. Funds were not available at that time for construction of the entire building.

Since then the state legislature has made appropriations sufficient to finance half the cost of the building, the university has issued revenue bonds and set aside some of its funds to cover the remaining cost, and construction has proceeded on the modern residence

hall to house 314 women students. The revenue bonds issued by the university will be retired with income from operating revenue.

The cafeteria section of the building is approximately 258 feet long and 93 feet wide at the widest part. It contains 4270 square feet of floor space in the dining room, 1834 square feet in the kitchen, and about 748 square feet in storeroom space. Additional space in this section of the building contains offices for the administrative staff of the university's student housing department.

This part of the building was designed and constructed with all provisions for the additional work, and the contractors had no difficulty maintaining construction schedules. The completed residence hall was ready for occupancy this fall.

The building is of reinforced concrete and hollow tile, with the exterior walls of buff colored brick trimmed in

BETTER FOOD COST CONTROL

Principles of control and their application in college food service

PART I

FOR THE MOST PART, FOOD COST accounting or control principles have been developed by and for the commercial restaurant industry. The college food service differs from that of the commercial restaurant principally in two important aspects: (1) attitude toward the patron, and (2) the profit motive.

In the institutional food service, the patron is considered both from an educational and from a nutritional view. Some thought has to be given by college dietitians to the balanced diet offerings to the students in order to maintain good health, but still at the lowest cost to the students. Attempts are made to educate them to eat proper foods. In the commercial field, the restaurateur is interested in keeping up with and encouraging the appetite of his customers without regard to teaching health habits in eating. His advertising technic is developed to entice people to eat in his establishment in preference to another.

In the college food service, the profit motive is secondary to the objective of making it possible for students to afford good food at the minimum price and still afford sufficient income to cover operating expenses. The restaurateur is in the food business to make money for himself—the more successful he is in this endeavor, the better restaurateur he is considered. However, in both fields constant watch on costs is the guide to achievement of the objective. Hence, the broad principles of food cost control will apply in both fields.

As a starting point, I offer this definition of food cost control taken from the book, "Hotel Accounting," by Horwath and Toth: "Food cost control or food cost accounting is a means of assisting the management to obtain the highest possible gross profit on food sales consistent with

WENDELL G. MORGAN

Assistant Treasurer
Howard University
Washington, D.C.

the policy of the management as to quality and size of portions."

The college food service is actually a manufacturing center with all the various processes of purchasing raw materials, converting them into finished products, and selling them to student and faculty customers. Hence, food cost control is cost accounting applied to the distinctive production methods of the college dining room or cafeteria. Its purpose is to provide the college food service supervisor with the highest possible gross profit commensurate with the institution's standard for furnishing quality and quantity of nutritional food to the college community at the lowest price.

KNOW DAILY FOOD COSTS

Food cost accounting furnishes the college food supervisor with reports on food costs and sales and, in addition, extends important controls over purchasing, receiving and storing raw foods, as well as the issuance, preparation and sale of foods. Hence, the college food supervisor is responsible for the development in his food service of an effective system for the physical control on all foodstuffs throughout the entire process of acquisition, storage, production and service. In other words, there is control of the food from the time it enters the college storeroom and kitchen until it reaches the student customer in the dining room. The test of the efficiency of the system is found in the information supplied to the food supervisor in the daily report. Daily, the food supervisor should know his food cost.

In order to achieve the effectiveness of a cost control system, E. E.

Wunderly, C.P.A., in an article in the September 1948 issue of the *Horwath Hotel Accountant*, points out that there are at least four essentials:

1. The cost of the system or its execution must be considerably less than the savings effected. If the installation and operation of a system are too expensive for the savings realized, it is apparent that the system needs restudy and revision.

2. The regular routine of the kitchen must not be hampered by the system procedures. The chef, cooks and other personnel cannot be expected to perform clerical or accounting duties in addition to their regular chores. The system routines should be performed in such simplified manner that they are not burdensome or complicated to the kitchen crew. Yet, the kitchen crew should have an awareness of the system and know its effects.

3. The accounts in the institutional business office should control the cost records of the college food service. In other words, sales and the cost of sales as reported by the food service report should agree with the regular accounts in the business office.

4. The information supplied by the system must be sufficiently detailed to provide a basis for corrective measures. Such inefficiencies as overproduction, poor purchasing, waste in cooking or spoilage, and pilferage should be revealed by an adequate system.

I would add another essential feature of a system: that is, the information should be speedily gathered and relayed to the supervisor in a daily report. Unless the information is available to supervisory personnel quickly, serious losses may continue before they are revealed and remedial steps taken. The daily food cost figure reported by any system is not going to be an absolutely accurate

figure because it is impossible to determine exact costs of daily inventories. The cost figure reported daily, however, will be close enough for managerial purposes. Adjustments for inventory will be made at periodic accounting periods.

With a definition and an outline of the essentials of food cost control in mind, let us consider specific areas of control in this order: (1) raw food control, (2) food preparation, (3) sales, (4) record keeping and reports, and (5) personnel.

Under the first area, raw food control, may be grouped the methods and problems found in purchasing, receiving, storing, issuing and inventorying food.

Purchasing is one of the first points of control. Here, the purchasing agent must have knowledge of food requirements; must have specifications well in mind; must know sources; must be aware of the market on food prices; must know his storage facilities and inventory of each item.

How elaborate the purchasing organization is will depend upon the size of the food service operation. At Howard University, for example, our food service operation is relatively small, involving less than 2000 meals a day or 47,000 meals a month for the three units on the campus. In addition, two units off the campus that are combination commercial and institutional operations would add approximately another 12,000 to the monthly meals served. We have been operating these units with a simple purchasing procedure of each supervising dietitian making her own purchases direct. We have under consideration a plan of centralized purchasing and contract buying coupled with central storage, hoping thereby to effect certain economies.

QUALITY COMES FIRST

Competitive buying is important, but price comparison should not be the sole consideration. Quality should always be uppermost in mind. In determining quality, standard specifications should be set up for each food commodity. Buying should be gauged to need, especially in perishable foods and where storage facilities are limited. Loss from spoilage and shrinkage is avoided and working capital is not tied up in huge inventories of stock unnecessary for current use.

When the organization is large enough, tests can be run on canned

goods, meats, poultry and seafood to determine the quality of merchandise purchased and for setting up purchasing specifications. A cooperative arrangement with the institutional home economics department may provide



this test or laboratory service if the food service organization is not large enough to warrant its own laboratory.

Briefly, our purchase routine at Howard University is this: The purchase requirements are listed daily by the dietitian on a form that provides for telephone quotations from three or more concerns for spot purchasing. When satisfactory prices and delivery assurances have been obtained and orders given, a summary sheet is supplied to the storekeeper so that he may know what to expect from each supplier. This information becomes one of the important food cost figures for the daily report.

If time will allow, the purchase order is the best means of maintaining control over purchasing. The purchase order should be made at least in quadruplicate; additional copies for alphabetical and numerical files are useful. The original goes to the vendor, giving specific information as to specifications for quality, quantity, size, pack, weight, quoted price, terms and shipping instructions. One copy goes to the business office, one copy to the storekeeper, and one copy is retained by the purchasing agent.

When the invoice and shipment are received and approved by the storekeeper and dietitian, the storekeeper's copy with the attached invoice is sent to the business office for comparison and payment.

Receiving is the next guide post in raw food control. If there is a storekeeper in charge of the storeroom, responsibility for this activity is localized there. Whether or not there is a full-time storekeeper, responsibility for receiving all deliveries should be

placed in one reliable person. Collusion in shortages on deliveries between the receiving clerk and the vendor's deliveryman is discouraged by rigorous supervision of issuance and physical inventory-taking. All deliveries should be checked upon receipt for weight, count, quantity, quality, size and price. Adjustments for differences between deliveries, orders or invoices should originate with the receiving clerk.

The suggestion made by Horwath and Toth for making certain that adjustments are properly provided for is the use of a form "Request-for-Credit-Memorandum." This form is prepared in triplicate. The original goes to the vendor and the duplicate to accounting; the triplicate is retained by the receiving clerk or storekeeper until the credit is received.

The Request-for-Credit-Memorandum form is numbered and provides space for the name of the vendor, our order or requisition number and date, vendor's invoice number and date, description of item, quantity, unit price, invoice amount, reason for submitting the request, the food service unit, and signature of receiving clerk or storekeeper.

DATA FOR DAILY REPORT

Deliveries are listed in duplicate on a daily receiving report that provides space for vendor, commodity, quantity, unit price, amount and distribution. The distribution shows the dollar value of each purchase issued direct to kitchen, to storeroom, to sundry expense. The original copy goes to accounting; the receiving clerk retains the duplicate for completing entries to the perpetual inventory cards. The daily receiving report becomes another source of data for the daily operating report.

The receiving clerk can use little technics like stamping the packing or unit price and the receiving date on the carton. When goods are unpacked for shelving or for issuance to the kitchen, unit prices are readily available on the merchandise itself without further reference to files or delivery sheets. Old merchandise can be easily identified and used first. Tags with wire hooks can be used in the same manner for meats, cheeses and perishables. As the items are issued, the tags are removed and information thereon is transferred to the requisitions. Foodstuffs packed in barrels or drums can be labeled with withdrawal cards. The total weight or content is

recorded on delivery. Issuances or withdrawals are likewise recorded on the card. This reduces the problem at inventory-taking periods.

Storage is the third control for raw food. Adequate and orderly storage facilities will reduce losses from spoilage, pilferage and overstocking. The adequacy of shelving, storage area, and refrigerated storerooms will prevent unnecessary loss through spoilage. Perishables should be kept in clean refrigerators at proper temperatures.

If the storage spaces are orderly, inventory-taking becomes an easy routine rather than an ordeal. Too, disorderliness gives the impression of disorganization and lends itself to pilferages that can reach serious proportions. Orderly storage facilities make for easy observation of slow moving merchandise and prevent further purchases of an overstocked item. Spoilage is further reduced in an orderly storeroom by using old stock first.

Refrigerated storage facilities should include a deep-freeze unit, fish box, and at least three walk-in coolers (one for meats and poultry, one for fresh vegetables and fruits, and one for dairy products). Recommended temperatures for the three walk-in coolers are 36° to 38° for meat and poultry, 38° to 40° for fresh vegetables and fruit, and 40° to 42° for dairy products.

The storeroom should have adequate weighing facilities, such as a hanging scale for small articles and a platform scale for larger items.

CONTROL FOOD TRANSFERS

The transfer of food from the storeroom to places of use requires a control on issuance. This, too, is a function of the most vital importance. This is the stage where raw food moves toward the first production stage and for that reason becomes a cost item in the daily food cost. The essential control is the withdrawal requisition.

This withdrawal requisition, or storeroom order, should be completed in at least duplicate copies—in some organizations a third copy may be wanted. All requisitions should be numbered and signed by the designated requisitioning authority. Space should be provided for certification of issuance and receipt. One copy is retained by the storekeeper; the other is retained by the employee receiving the merchandise. The receiving employee should verify the quantity and description of the items received. The

storekeeper can use his copy to record withdrawals on the perpetual inventory cards. At the close of the day, both copies are turned over to the accounting office.

Constant supervision of the requisitioning procedure is necessary to keep it enforced. "Standing requisitions" are tempting violations of the requirement on withdrawals. Calling for a certain daily quantity of merchandise oftentimes lapses into "oral requisitions." This is irregular both from the standpoint of waste or spoilage, in



not considering the actual need based on customer count, and from the standpoint of loss of control, as costs figures of such merchandise may be unintentionally omitted in daily reports and inventory maladjustments may occur that are hard to explain.

The final link in raw food control is the inventorying procedure. It is vitally important that a monthly physical inventory be taken of foodstuffs. There is no easy road to an adequate safeguard of stock-taking other than a physical count. The perpetual inventory record has value administratively in giving the supervisor a quick report on stock levels for purchasing and menu planning purposes, but it should not be relied on too heavily for the other control purposes. The physical inventory should be reconciled monthly with the inventory figure computed by this simple formula: To the inventory at the beginning of the month add the purchases during the month, from which deduct the issues during the month. The resulting figure should be the same as the physical count total.

The inventory form should provide for the classification of commodity, the commodity, brand name, packing, number of units, unit price, total and remarks. The remarks column offers opportunity to record notes on old-age items, if any. Each page shows (1) its number, (2) the total number

of pages in the inventory report, (3) the total value of the items on the page, (4) cumulative total for that page and preceding ones, and (5) names of persons calling, recording and extending prices on the items. The final page gives the total inventory value of all the pages and is certified by the storekeeper and the dietitian.

MONTHLY INVENTORY

The inventory is prepared monthly in duplicate. The original is sent to the business office, and the duplicate is retained by the dietitian. Time is saved at inventory-taking periods if stock is arranged on the shelves and in storage areas in the same order as in the inventory listing. Often a neglected step in inventory-taking is to take a monthly physical listing of foodstuffs in the producing departments.

An added safeguard to the validity of the physical inventory is provided if the persons taking and recording the count are not connected with the storeroom.

Mr. Wunderly offers six common reasons for discrepancies found when reconciling the book and physical inventories at the end of the month. Five of the reasons involve the storeroom. They are as follows:

1. Allowing employees other than the storekeeper to fill orders in the storeroom.

2. Issuance of stock by the storekeeper on oral orders, expecting to receive proper requisition later.

3. Filling orders improperly by guess instead of by weight, count or measure.

4. Partially filling requisitions and failing to record exact amounts issued or issuing credit memoranda for the missing items.

5. Failure to keep a storeroom record of goods returned to it for credit.

6. Faulty practice of pricing items with the prices used in the previous month, regardless of the price at which the items were purchased during the inventory month.

A seventh cause for discrepancy in inventory reconciliation can be pilferage.

Comparison of inventories is an important control because it is the first step to take in investigating the cause of unsatisfactory return revealed by the cost records on any group of commodities.

In the next issue, technics of control in food preparation will be considered.

INCREASED ENROLLMENT AND ADDED volume in auxiliary enterprises, incident to an educational institution in these days, make it advisable to consider the installation of machine bookkeeping and accounting over the conventional pen and ink bookkeeping method. This situation is true in a small college, such as ours, which has an enrollment of 500 students.

Not only have auxiliary activities been added to operations but the volume has increased from 600 to 700 per cent and includes student activities and organizations, bookstore, resident and dining halls, coffee shop, laundry, veterans' housing, printing and publishing. These activities, together with current, endowment, loan retirement, and plant funds, as well as operations for administrative, instructional and noneducational departments, make it imperative that the accounting system should produce up-to-date, accurate and permanent records of all financial transactions.

This procedure allows the administration and various division heads the necessary data for a greater degree of fiscal and budget control. We know that frequently faulty administrative and trustee decisions have been due to incomplete bookkeeping records.

CHANGE TO MACHINE

The decision to change to machine operations at Yankton College was made possible, in part, by the Federal Works Administration when it procured a bookkeeping machine of the typewriter model with six adding registers for the business office. A day and a half was spent with representatives of a well known machine company and a manufacturer of accounting forms who were well acquainted with educational procedure in large institutions.

Our system was not changed materially; only many refinements were developed to fit our operations with the use of the new forms. The following forms were made: (1) Journals: cash, check register, pay roll, interdepartmental debit and credit, student charges, and general journal proof sheet. (2) Subsidiary Ledgers: income, expense, student account, student notes, miscellaneous account. (3) General Ledger: control accounts.

New forms that have been added and have been of particular advantage are individual employee earnings rec-

Machine Bookkeeping and Accounting for Small Colleges

R. W. FEYERHARM

Secretary-Treasurer
Yankton College, Yankton, S.D.

ord, special pay roll journal, and pay roll checks. Here, four records are written with one operation — check, check stub, individual employee's earnings record, and check register. One individual student card will contain the records of a student's account, grant in work aid, scholarship grants, and deposits for the entire four years. The transactions for these records, made in one operation, are (1) student account statement; (2) ledger sheet, and (3) student charge journal.

This, of course, eliminates the usual quarter or semester card, which, during the student's four years in college, would amount to eight forms on the semester plan or 12 in the quarter system. The one card is a handy reference at all times to give the student a complete financial picture for the entire period he is in the institution.

In departmental ledger accounts, the budget amounts are typed on the heading line over the balance column. The difference between the balance and the typed amount, of course, would indicate the unexpended balance. We believe that in small institutions inclusion of unrealized income and outstanding purchase orders may not become necessary.

RELATIVE COSTS

The operating costs for either method are divided into two classes—cost of forms and cost of labor.

Under the pen and ink method, the journals, ledgers and forms cost our college an average of \$100 a year and the salary of a full-time bookkeeper.

The cost of our forms under the machine method was \$422, which will be amortized over a period of from three to five years, or an annual cost of \$100. This amount is practically the same as the cost under the former system. However, these forms were printed especially for Yankton College and,

of course, entailed more expense. The forms should be cheaper because of the fact that there is no need for special glazed paper to prevent the spreading of ink in the pen and ink method. Then, too, cross rulings are not required and down rulings are of a simpler nature under the machine type of journal and ledger sheets.

If enough small institutions develop a need for these forms, they could become standard and the cost would be materially reduced. We know that in the future additional forms will cost us less and our annual expense, after the first five years, will be reduced. The labor costs for a bookkeeper have been reduced by one-half. A former full-time bookkeeper is now employed only half time. Any bookkeeper able to use a typewriter can soon become a competent operator.

The initial outlay for equipment, including adjustable tray, binders, permanent ledger binders, and cabinet, amounted to \$215. The cost of a new typewriter accounting machine with eight registers was approximately \$2500. The contract cost of servicing the machine is about \$80 a year.

Greater efficiency in machine operations is effected by the following:

1. The possibility of errors is reduced in posting. With the pen and ink method the posting was done from the original papers to the journal and from the journal to the subsidiary and auxiliary ledger accounts. In our present machine method, we have eliminated these intermediate postings so that we post directly to the ledger accounts and to the journal in the same operation. This journal record is a carbon copy of the entries that were recorded to the ledger.

2. The elimination of the intermediate postings.

3. The journal and ledger accounts are added automatically, and balances

STUDENT CHARGE JOURNAL
YANKTON COLLEGE
YANKTON, S.D. DAKOTA

PREVIOUS BALANCE	DATE	REF.	DESCRIPTION	CHARGES	CREDITS	BALANCE	NAME	ACCOUNT NO. 1	ACCOUNT NO. 2	ACCOUNT NO. 3	ACCOUNT NO. 4	DEBIT	STUDENT ASS'N
.00	SEP 15 48	SCJ50	TUITION 1ST SEM	150.00		150.00	JOHNSON, ROBERT	150.00					
150.00	SEP 15 48	SCJ50	CHEMISTRY LAB.	10.00		160.00				10.00			
160.00	SEP 15 48	SCJ50	BOARD	135.00		295.00						135.00	
295.00	SEP 15 48	SCJ50	SALES TAX	2.70		297.70						2.70	
297.70	SEP 15 48	SCJ50	PCOM	45.00		342.70						45.00	
342.70	SEP 15 48	SCJ50	STUDENT ASSOCIATION	12.00		354.70							12.00
.00	SEP 15 48							150.00	.00	10.00	.00	162.70	12.00

STATEMENT
YANKTON COLLEGE
YANKTON, S.D. DAKOTA

Robert Johnson
Look Hall
Yankton, South Dakota

DATE		REFERENCE	DESCRIPTION	CHARGES	CREDITS	BALANCE
SEP 15 48	SCJ50	TUITION 1ST SEM	150.00		150.00	
SEP 15 48	SCJ50	CHEMISTRY LAB.	10.00		160.00	
SEP 15 48	SCJ50	BOARD	135.00		295.00	
SEP 15 48	SCJ50	SALES TAX	2.70		297.70	
SEP 15 48	SCJ50	STUDENT ASSOCIATION	12.00		312.70	
SEP 15 48	SCJ50	SCHOLARSHIP		150.00	162.70	
SEP 15 48	SCJ50	SAL 1ST SEM		31.50	194.20	
SEP 15 48	SCJ50			50.00	244.20	
SEP 15 48	SCJ50			273.20	71.00	

STATEMENT
YANKTON COLLEGE
YANKTON, S.D. DAKOTA

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SEP 15 48	SCJ50	TUITION 1ST SEM	150.00		150.00	
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SEP 15 48	SCJ50	SCHOLARSHIP		150.00	162.70	
SEP 15 48	SCJ50	SAL 1ST SEM		31.50	194.20	
SEP 15 48	SCJ50			50.00	244.20	
SEP 15 48	SCJ50			273.20	71.00	

are shown when the posting is made.

4. This method allows for daily proofing, and there is less material to check for error because of the mechanical operations.

5. The card ledger plan as against the bound ledger and journal system is much easier to handle; it allows the operator to have all the records within easy reach for handling the forms from her station at the machine.

6. The fact that accounts are always balanced saves a considerable amount of checking and reference time.

7. There is a great saving in the machine method for pay roll operations. Under the old system, the following were distinct and separate operations: the check, cash book, voucher

record, and ledger. For example, one operation performs now what formerly took five operations — as check, check stub, entry in the cash book, entry in the voucher record, and ledger.

8. The card system permits diversity in the various operating units and allows flexibility in the expanding or contracting with changes in the operations.

9. Prompt and accurate data are available for the various division heads and on agency accounts.

10. A greater fiscal control has been made possible because of the fact that up-to-date balances have been provided on a daily basis for any account.

11. Saving in annual operating costs.

installations, listening to pros and cons by the hour. After three months we finally were able to make a decision and place our order. We received the machine one month before the beginning of this fiscal year, a convenient time for making such a change.

But our work had just begun. Now we had to decide on the details of each operation. The engineer worked with us in developing a system and forms for accounts receivable (including student payment records), accounts payable, check writing, pay roll, general ledger, and general journal. All these were studied and approved by our auditors.

The human element also had to be considered. Our aim has been to acquaint four of the five girls in the office with the machine. Each of them does a particular job regularly and, with the help of the manual, can do any of the other jobs.

The installation cost more than \$5000, including the loss on discarded stationery. The only thing salvaged was our supply of check forms, which we were able to adapt by minor and inexpensive overprinting. They are not quite as efficient to use as checks designed expressly for this use, but when the present supply is exhausted it will be a simple matter to change the machine for handling a new form, one of the advantages of the typewriter-bookkeeping machine. It is very flexible. Its control rods, the brain of the machine, can be easily changed in a few minutes to handle practically any new function desired.

We feel that this seemingly large expenditure will have been worth while. In the first place, as a long-term investment the cost is not so great. By prorating initial expense and the yearly maintenance contract over a 10 year period (a conservative machine life estimate), we found weekly cost less than \$9. This is little enough to pay for more and better financial information, always in balance and accurate; quicker answers to administration questions; easier distribution of information to department heads; the elimination to a great extent of bookkeeping peaks; neat, compact records; simpler, self-proving operation permitting cheaper and probably less labor.

These are the benefits that our friends in commerce and industry have been enjoying for a long time. Our study convinced us that we can have the same advantages.

More and better information with a BOOKKEEPING MACHINE

WILLIAM B. CUTLER

Assistant to the Comptroller
Rochester Institute of Technology
Rochester, N.Y.

IT IS THE BASIC FINANCIAL POLICY of an institution of learning that its funds are to be used first for teaching equipment and expense, and only second for the necessary expenses for buildings and grounds, auxiliary services, and office administration. It follows that the latter expenditures must be made wisely. There is wisdom in the procurement of modern and efficient equipment, methods and working conditions.

For more than a century Rochester Institute has taken pride in its up-to-date technical facilities and teaching staff. All available funds have been poured into replacement of old equipment with the latest of industrial developments. Only recently has the business office undertaken several projects of modernization that will be well worth the expenditures made in the long-range efficiency and savings gained. One of these was the installation of a typewriter-bookkeeping machine.

For some time we had been considering machine bookkeeping. Swamped with greatly increased bookkeeping, which the institute's growth during the last 10 years had caused, and prodded by numerous articles on the subject, we decided to look into it seriously.

Our first step was to read all available information on the subject and to study installations in other schools. The latter was fairly difficult because the use of this outstanding tool of business is somewhat limited in the educational field, at least in the smaller institutions with problems similar to ours. With this background we felt prepared to ask for specific proposals from three manufacturers of typewriter-bookkeeping machines. Our research indicated that this type of machine was best suited to our needs, since our volume of work did not reconcile the expense of tabulating equipment.

WEIGH VALUE OF EACH

The sales engineers came in and studied our manual system, asked question after question, and finally fully satisfied themselves that they had comprehended all of our requirements and desires. Each one then presented his adaptation of our needs to his machine, pointing out the good—and admitting the weak—features that he could give us. We set up a comparison check list of the various features available on each model, attempting to weigh the comparative value of each.

Next, with and without the salesmen, we visited various commercial

THE TAXATION OF



EMPLOYEE PENSIONS

T. E. BLACKWELL

Treasurer, Washington University
St. Louis

FREQUENTLY, COLLEGE ADMINISTRATORS are called upon to advise faculty and other employees as to the tax status of pensions and annuity payments to be received after retirement. To the average layman, a pension is a gift or gratuity. The employer is normally under no legal obligation to agree to make such payments.

CONTENDS IT'S GRATUITY

In June of 1922, the members of the board of trustees of the Carnegie Institute of Pittsburgh retired Dr. John W. Beatty from active service with an annual pension of \$6000. When the Treasury Department attempted to collect a tax upon this income, Dr. Beatty contended that it was a gratuity and, hence, not taxable. The federal court¹ held that, in order to qualify as a gift or gratuity, there must be complete absence of consideration for the payment. It found that prior services rendered by Dr. Beatty constituted sufficient consideration to classify these payments as additional salary. This decision has been followed in the subsequent rulings of the Treasury Department.²

It follows, therefore, that if the pension is paid by someone other than the former employer, the payments do not constitute taxable income to the recipient. This reasoning is the basis of the informal ruling of the Treasury Department dated July 2, 1920:

"... In reply you are advised that after careful reconsideration of the matter, the office has reached the conclusion that retiring allowances granted by the Carnegie Foundation for the Advancement of Teaching to retired

college professors and their widows are in the nature of a gift or gratuity and are not taxable income to the recipient. This decision is held to be applicable under the various revenue acts which have been passed prior to this time."

The commissioner of taxation and finances and president of the New York State tax commission, in an informal ruling dated Jan. 28, 1941, held that the Carnegie retiring allowances and widows' pensions "are gifts and not in consideration of services rendered. The income, therefore, is exempt from tax."

In 1927, a Massachusetts court³ was called upon to rule on the same question. An attempt had been made to subject the Carnegie pension received by a professor emeritus of Harvard University to the state income tax. The court held that the pension was not in the nature of compensation for service rendered and, hence, was not taxable.

MONTHLY REMITTANCES

The Carnegie Foundation usually pays only two-thirds of the pension by monthly remittances. For the remaining one-third, the Carnegie Corporation purchases an annuity contract in the name of the pensioner from the Teachers Insurance and Annuity Association. To the layman, this lump sum purchase of a monthly income is as much a gratuity as are the direct monthly installments, but the Treasury Department, in the following informal ruling dated Dec. 7, 1942, has held that these annuity payments are not exempt:

"... You state that when a college teacher is eligible to receive free al-

lowances from the Carnegie Foundation, the Carnegie Corporation of New York supplies your association with sufficient funds to purchase an annuity for the college teacher in question equal to a proportionate part of the allowance from the Carnegie Foundation. Your association then issues an annuity contract to the college teacher under the terms of which your association agrees to pay an annuity of a specified amount monthly throughout the life of the annuitant. Where an annuity is purchased for an individual, it is subject to tax to the extent provided in section 22(b)(2) of the Internal Revenue Code. Accordingly, it is the opinion of this office that the annuities to which you refer are not exempt from federal income tax."

"The pertinent provisions of section 22(b)(2) of the Internal Revenue Code are as follows: 'Amounts received as an annuity under an annuity or endowment contract shall be included in gross income; except that there shall be excluded from gross income the excess of the amount received in the taxable year over an amount equal to 3 per centum of the aggregate premiums or consideration paid for such annuity . . . until the aggregate amount excluded from gross income under this chapter or prior income tax laws in respect of such annuity equals the aggregate premiums or consideration paid for such annuity.'"

NOT TAXABLE INCOME

The tax status of a retirement annuity, purchased jointly by employer and employee, is on a different basis. The employee of a nonprofit corporation need not include in his report of taxable income that portion of the retirement annuity premium paid by his employer. The current regulation⁴ on this point is as follows:

"If the employer is an organization which is exempt under section 101 (6), the employee is not required to include in his income the amount paid by the employer for an annuity contract."

However, upon retirement, the payments received from the annuity contract do not constitute taxable income to the individual to the extent of 3 per cent of the consideration paid by him for the contract, under the same provisions previously cited, *i.e.* section 22(b)(2) of the Internal Revenue Code.

⁴Reg. 111, Sec. 29:22 (b)(2)-5.

¹Cora B. Beatty, 7 B.T.A. 726 (1927).
²L.O. 1040, C.B. Dec. 1920, p. 120, modifying L.O. 560, and overruling O.D. 361, C.B. June 1920, p. 73.

³Lyon v. Commissioner of Corporations and Taxation, 155 N.E. 440.

IN THE MANAGEMENT OF MAINTENANCE MEN

we must recognize the dignity of the chain of administrative

authority, the dignity of the positions, and the dignity of man

E. B. FARRIS

Chief Engineer, Division of Maintenance
and Operations
University of Kentucky

A PECULIAR FACT OF UNIVERSITY operation is our seeming inertia in applying the results of academic study to the solutions of our own problems. In fact, there is often resentment on our part when our superiors request or direct us to consult with our "specialist" staff members; as a former college professor, I can testify that this resentment frequently is justified.

We need the scientific approach to personnel problems, but it cannot be made on a part-time basis. The proper approach combines the conclusions of the psychologist, the safety man, the production expert, the industrial engineer, the businessman, and the social scientist. We seem to be making some headway as evidenced by the appearance of a flood of magazine articles on the subject under various titles that have as their concept (a) "How We Do It Here" and (b) "Employees Are People, Too."

Back in 1938, in a series of lectures at Harvard, Chester Barnard, then president of the New Jersey Bell Telephone Company, and now president of the Rockefeller Foundation, set the groundwork for his book "The Functions of the Executive" published by the Harvard University Press in 1946. (This book should be required reading for all executives.)

At least a dozen U.S. universities are now concentrating on the problem of labor and management, and many industries are sending their key men back to school to learn the human approach to personnel problems. Possibly we can convince our directors that sabbatical leaves for administrative personnel to attend such courses would be to the advantage of the institution and the individual. The courses are available, and if it is good business for big business it must be good education for educational ad-

ministrators who deal largely with personnel.

To draw a parallel, college business officers and their staffs cover many fields, such as building management and operation, central steam systems, maintenance shops involving many special trades, construction of buildings, operation of restaurants, bowling alleys, sports arenas, golf courses, parks, hotels, electric utilities, laundries, swimming pools, truck fleets, and theaters. There is not a field mentioned here that is not of sufficient specific importance to have a monthly trade journal, and each of these journals almost invariably has one or more articles on personnel under such titles as "Safety," "Personnel Qualifications," "Relations With the Public," "Courtesy in Employees."

I think that no capable employee at any level resents *competent* criticism. Incompetent criticism is dynamite from the employee relationship standpoint. Obviously, we cannot be competent in all the various fields, but the technic of supervision is available to all of us. If we approach each situation with the idea of learning something about it, even if we have a fair knowledge, the weaknesses and strength of the individual will appear, a joint respect emerges, and the problems are, if not solved, at least clarified.

Buildings and their component parts will wear out, but the job of the maintenance engineer is essentially that of prolonging the life of the structures. But many times we are told by business officers that the money is not available to paint, lubricate or check as often as may be necessary or desirable from a standpoint of ultimate economy.

One peculiar characteristic of maintenance work is that successful maintenance depends entirely on the inter-

est of the person doing the work. The maintenance man, to be successful, must be interested in causes as well as in the repair. A dissatisfied employee seldom will be interested in causes. The average maintenance employee cannot be required to learn to service a complicated piece of apparatus, but he can be requested, or sometimes challenged, to do so with surprisingly satisfactory results. This procedure follows the tenet of good management that "we must make the best use of each person's ability."

A characteristic much to be desired and cultivated is the sense of personal possession and frugality that some individuals have naturally. These persons are frequently neurotic and uncooperative. They are the fellows who won't lend their equipment, release the materials they have located themselves, or compromise on the best way of doing a job, but their motive in this respect cannot be questioned, and such men often make the best supervisory employees.

Harvard Prof. B. M. Selekman, an expert in labor management arbitration, put it this way: "There is a certain element of neuroticism in all leadership, and the difficult thing is to determine how much of this can be eliminated without impairing the executive's drive to get things done." I find this neurotic drive in my best foremen, see it in the best professors, and suspect it in my superiors.

The range of maintenance and operations personnel scales from the lowest type of unskilled labor to the mechanics of amazing skill who can and do learn to service everything from a lawn mower to an electron microscope.

Too little study of, and attention to, individual persons is made by the average university executive. Every one of us should attempt occasionally to analyze in our own mind the desirable characteristics and faults of our em-

From a talk before the Southern Association of Colleges and University Business Officers at Berea, Ky., April 1949.

ployes, balanced against the requirements of the job. There are brilliant scholars who are poor administrators, good administrators who are only fair scholastically, excellent clerical workers who cannot meet and work with the public, good janitors who have difficulty getting along with the faculty, as well as that extremely lovable, polite old character who is not

worth his salt. The balancing of the desirable characteristics against the bad is the problem of the administrator. Haven't we all protected some employe against the fury of a faculty member because we know the good more than offsets the bad?

The textbooks on personnel, in general, belittle the intuitional processes in labor selection, but many success-

ful personnel men state flatly that they depend partially on intuitional processes.

We often make mistakes in personnel selection, with serious results; such mistakes could be reduced by the usual personnel tests used by many large companies and some universities. Another valuable adjunct of the personnel office lies in the fact that it freezes policies. There is an innate distrust among workmen that only the printed, stated policy cures. Non-academic personnel offices in colleges and universities have proved their worth.

The problem of honesty in employes is one of our greatest problems. Nothing promotes honesty as much as constant checking, adequate supervision, and careful investigation of applicants. The employe who "goes bad" after some years of satisfactory service is usually found to be a person who was not sufficiently safeguarded from his own temptations by an adequate system of checks and balances. But a dishonest person is essentially a disloyal person. In studying this aspect of the problem one cannot help but wonder just where and when the person lost his loyalty. Much dishonesty starts with a grievance, real or imaginary, and in analyzing such cases we must admit that, in general, management has failed in control and in human relations.

AVOID PATERNALISM

We want certain values in our employes. The old-fashioned virtues of loyalty, honesty, dependability and sincerity are nurtured on the simple feeling in the employe that his superiors are interested in his welfare, his work, and his results but we must avoid the pitfalls of paternalism. The means of showing interest are numerous: commenting on appearance of his work, showing interest in his family, giving him good tools and equipment to work with, showing concern over his health, attending meetings, going to funerals, asking his advice, and flattering him by taking it.

In the play, "Life With Father," the mother says, "I know Henry loves me because I keep reminding him of it." The corollary of this philosophy is also true. If we show little interest in our men we will get little accomplishment. We must recognize the dignity of the chain of administrative authority, the dignity of the positions, and, above all, the dignity of man.

We vote for

CENTRALIZED VISUAL AIDS

S. T. CUMMINGS

Assistant Business Manager
Texas Technological College
Lubbock, Tex.

THERE ARE DISADVANTAGES AS WELL as advantages to a centralized bureau for motion picture projectors and films. However, from an economical standpoint, there is no question as to the value of such a bureau. It begets the following results: (1) the investment in equipment is materially reduced; (2) the operating cost is minimized, and (3) a more efficient handling of machines and films at all times is ensured.

Let us begin by reversing the procedure and mentioning the disadvantages first, which are not many but are pertinent when they occur.

The individual departmental problem is the basis for determining what the needs should be. Most of the objections are psychological, but even then it is not possible to overlook specific cases. As an example, in the mechanical engineering shops at Texas Technological College each daily laboratory period is begun with a film of 15 or 20 minutes' duration. Because of this, the students are able to go right to work on the machines with a clear-cut picture of what the experiment is to accomplish. The fact that this is a daily routine makes it desirable that this department own and operate its own projector. It would not be practical for a centralized bureau to tie up a machine and an operator for these multiple short periods. Some institutions do not dispatch

operators with machines sent out by the bureau, relying on the care exercised by the person in charge of the group. We have found that the extra expense incurred for operators, where the machines are to be moved, set up, and operated, is good insurance in more ways than one.

A second disadvantage is that imported films often arrive at irregular and belated intervals, making it impossible to plan in advance as required by the bureau.

As to the advantages of centralization, we have on our campus a library of some 900 films belonging to the extension division, with a specially prepared room and two machines. Most of our departments make use of this service. Only recently our chemistry department used the visual aids room for three hours on each of three successive days, reaching a total of 1500 students. Several departments have their own especially prepared rooms and, when needed, operator and machine are transported to them.

The time may come when our extension division will have to be subsidized in its venture, but for the last two years it has proved successful. Even if a subsidy is required, it will still be quite a saving over the individual method as it utilizes the "lost motion" in both men and material so prevalent in the individual departmental method.

PRESERVATIVE TREATMENT OF WOOD

*in construction proves to be inexpensive
insurance against warping and splitting*

MORE LOSS IS CAUSED ANNUALLY BY moisture through warping, decay and termite infestation of wood in structures than is sustained in many years of wear. Most of it can be prevented at a moderate cost through a simple treatment of the wood with a comparatively little known prewar material that minimizes the rate of expansion and contraction of wood and protects it from rot and insect attack.

It is a common, though exasperating, occurrence in buildings to have changes in the fit of doors and windows take place during finishing operations or after occupancy. These variations are due to the change in moisture content that accompanies the drying of the various building materials and the starting of the heating system. Doors warp and stick, and windows swell tight in their runs because unpainted edges and poorly sealed surfaces permit moisture to enter the wood.

MOISTURE CHANGE AFFECTS WOOD

The reason for these dimension changes is not hard to understand. Wood of all kinds has a similar reaction to moisture change, the intensity depending upon the cell structure. Rapid gain or loss of moisture produces greater expansion or shrinkage in the surface portion of a board than within, thereby setting up stresses that cause cupping, warping, splitting or surface checking. Also, too great gain in moisture content causes raising of the grain that destroys the smoothness and surface character of the wood, while the continued presence of moisture in wood sets up conditions ideal for the development of harmful fungi or rot or for termite infestation.

Outside woodwork particularly takes a beating from the weather and is especially benefited by this treatment. Warped, cupped or split siding and

HARLAN H. EDWARDS

Consulting Engineer
Seattle

outside finish, and blistered or peeling paint are common in untreated wood; they result from dampness, whether originally present in the wood, acquired periodically from rain, or resulting from water vapor coming from within the building and condensing upon the hidden surfaces inside the outside walls.

The moisture occurring inside a building comes from unvented heaters, humidifying equipment, cooking and people. It no longer is removed as in earlier years by air leakage around windows and doors but is retained by weatherstripping or by tightly fitting doors and windows and frequently builds up high humidities. This humid air condenses upon cold wall surfaces and on windows; it runs down the glass, soaks into the wood, loosens joints, and induces rot so that frequently the window falls apart. If no vapor barrier (asphalted or aluminum coated paper) has been built into the structure over the studs on the warm side of the wall, the moisture passes unnoticed through the walls. If the weather is cool, the vapor condenses on the cold studs, on the back of the sheathing or siding, or on the under side of the roofing (where attic ventilation is lacking), and eventually causes rot and mold, or trouble with blistered paint.

METHOD OF CONTROL

The method of control for these conditions is just to dip the dry wood into a colorless solution, which is both toxic to insects and rot and water repellent in its action on wood. For inside finish a one-minute immersion is normally adequate; for most exterior finish averaging 1 inch thick a three-

minute dip is needed, while for heavier timbers a longer treatment should be given, dependent upon the kind of wood and the type of service required. The duration of immersion for wood that is to be in contact with the ground may be from one to six hours, or a sufficient time to penetrate all the sapwood in the piece being treated.

Complete immersion of the dry wood in the solution is necessary for permanent results, because the liquid must thoroughly penetrate and saturate the exterior portions of the wood. Evaporation of the solvent leaves an elastic, permanent film that, lining the tiny cell walls, resists the passage of moisture and gives the wood units a moisture controlling and fungi preventing armor.

DECREASES DETERIORATION

Acting as a moisture barrier, this toxic, water repellent film retards the passage of water vapor through the wood and thereby decreases the warping and splitting of siding and the blistering and staining of paint.

The cost of this preservative treatment normally approximates \$10 per thousand board feet, a small amount for such effective insurance. It is entirely offset, too, by the saving in cost of replacement that might otherwise be required, to say nothing of its intangible values to the user in not having to experience these difficulties.

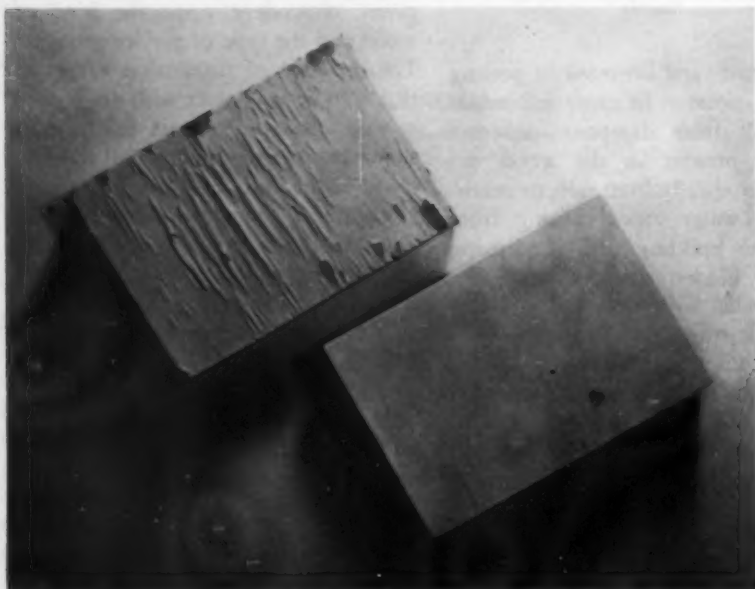
In addition to its effectiveness in preservation and dimension control, this treatment is also of great value to finish painting operations. The coating given is definitely not a "seal coat," but it acts as a partial prime, preventing the excessive striking in of the paint and providing a base coat that bonds well with paint materials. It protects the paint bond from the destructive effects of moisture in the wood and reduces the deep contrasts



Blistered paint caused by condensation of moisture on back of siding on a new building.



It is possible to preserve shingle roofs by spraying. Author is shown spraying roof of his home.



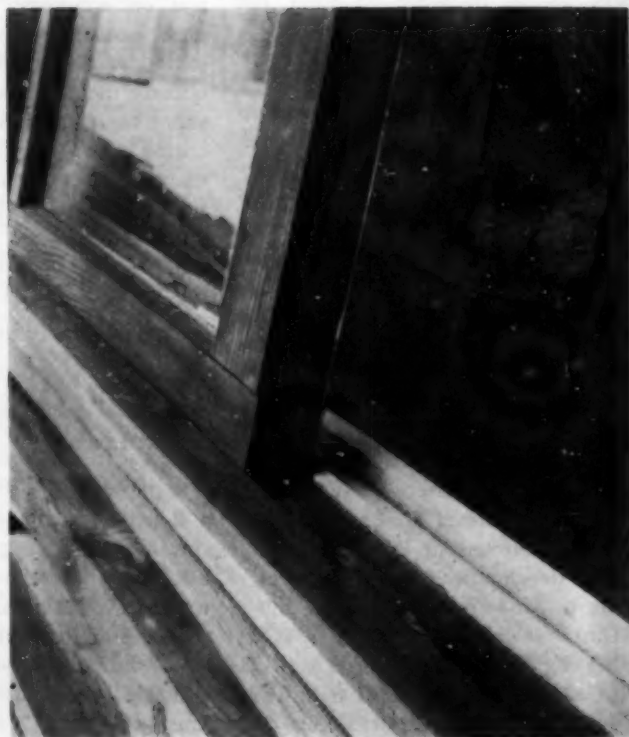
These two blocks of Ponderosa pine, the one on the left untreated and the other treated, were exposed outdoors for an entire winter. Both were finished with a hard enamel type of paint. Note how paint blistered and wrinkled on the untreated block, and remained sound on the treated one.

in appearance produced between spring and summer wood when oil stains are used. It should not, however, be used when a bleaching process is to be employed as a part of the paint finish.

Fungus and rot develop readily in damp, poorly ventilated places, such as unoccupied spaces under porches and buildings, and they destroy foundation timbers quickly. Often foundation ventilators are closed by uninformed owners or tenants to keep out cold winds. It is far better and safer to install insulation against the under side of the floor.

Sometimes structures are built with the ventilation openings omitted in certain portions of the foundation area because of the existence of high ground or earth-filled porches outside the building, the fact being ignored that in such dead-air spaces wood decaying organisms flourish and can ruin an unprotected building in short order. This was the case in a beautiful home

This sash is well along toward failure by rot caused by condensation.



Some plants dip their millwork in this manner.

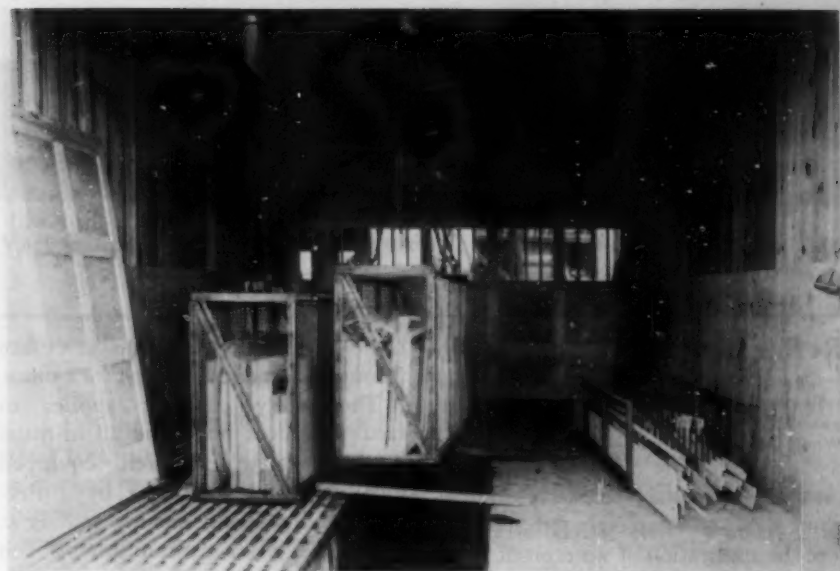
in Southern California a few years ago. The cost of the repair was far more than sufficient to have treated all the timbers and wood finish in the structure with toxic water repellent liquid.

In this home, the decay started under the building in a poorly ventilated area near an earth-filled concrete porch and spread through the floor of the living room. It continued up the wall sheathing and studs and spread like the branches and foliage of a tree into the second-story timbers and flooring. When it was discovered by the owner putting his heel through the living room floor, the supporting timbers had become so weakened that failure was imminent.

Water condensing from humid air on the lower side of roofing and roof sheathing and in walls of a school in Washington State caused rot that destroyed the usefulness of the timber and created a dangerous condition—a person walking on the roof might break through under his own weight. Large areas of sheathing could be removed by the fingers alone.

Another building suffered similar damage, wherein the upper 2 inches of a 3 inch plank roof over a swimming pool was rotted before the condition was discovered. A scant 1 inch of reasonably good wood was left to carry the roofing and live load over a span of 10 to 12 feet. Automatic steam operated equipment had been provided to reduce the humidity of the air above the pool but, for reasons of economy, the heating plant was shut down during night hours. Of course, the equipment was inoperative, too, at a time when the roof became coldest and condensation occurred most quickly. Replacement costs in both of these cases far exceeded what it would have cost to have dipped all the wood in the building.

It should be obvious that equipment and materials should be used with intelligence. It is also obvious that in many institutions men trained in the several fields of engineering and maintenance are not available and that the administrator cannot be a jack-of-all-trades. It is here that the advisory services of a consulting engineer specializing in this field become inval-



uable; they should always be available, preferably on an inexpensive retainer and fee basis.

Wood shingles, normally considered long lived, can develop destructive moss and rot growths within a few years if subjected to continued moisture. They also can warp and split under alternating wet and dry conditions until their effectiveness becomes seriously impaired. Here, again, the water repellent preservative solution, with permanent colors added if desired, has made possible a new quality treatment of shingles that is a "must" on new work.

RAIN WASHES DIRT AWAY

Shingles in the loosened bundle may be saturated satisfactorily unless a non-soluble coloring material has been added. This simplifies the method and lowers the cost of treatment. Shingles impregnated with this material usually hold their color and new character longer, since the soot and dirt wash off easily with each rain.

Existing dry shingle roofs can be treated with reasonable success by applying the preservative in a coarse spray directed up against and under the butts of the shingles, to penetrate particularly the lower lap areas where water is retained and rot starts first. A heavy coat, the surface being gone over two or three times to assure complete saturation, renders the shingles so water repellent that during a rain the water tends to run down the roof in beads instead of soaking into the wood and running off in a stream. For an ordinary house roof a 3 gallon "pump-up" spray outfit is adequate and will do a good job. One should be cau-

tioned, however, that the preservative solution should not touch plants or shrubs, for it will shrivel the leaves and possibly kill the plants.

During the war, the addition of permanent colors to the preservative solution extended its use, and it now provides a preservative stain on finish lumber and millwork. A quick-drying dip paint carrying these characteristics and at the same time having high hiding power also was developed in Seattle and was used successfully on housing projects at various locations along the West Coast. Applied at the mill and just touched up as necessary on the job, the treatment combined dimension control with preservation and painting at low cost.

Other uses for this material doubtless will be found by the thinking person using it. The fact should be emphasized that the toxic water repellent treatment is not a cure-all, nor is it a panacea for all ills. It is a most useful, versatile material having a high penetrating power. It is an excellent wood preservative, a treating solution that controls the causes of splitting and checking in large timbers as well as in small ones, and it provides a good base for painters' finish. With certain woods there is a slight tendency to roughen the surface; this will require a slight sanding of the surface on high-class work. This sanding, however, should be done anyway.

Painters usually oppose and criticize the treatment until they become well acquainted with it and the troubles it eliminates for them. General contractors will favor it on their work, and owners will appreciate its value more and more as the years go by.

Questions and Answers

Refinishing Swimming Pool

Question: We are anxious to refinish our swimming pool. The oil paint does not appear to be holding up as well as it should. What should be done?—F.E.D., Idaho.

ANSWER: The basic difficulty is caused by the fact that the original paint was not completely removed before the application of waterproof bond cement. Oil paint on swimming pool surfaces is usually not practical because it is "attacked" by water from the exterior surface and from the interior of the wall as well. In addition to that, there is always a tendency for oil in the paint to saponify because of the presence of alkalies in the concrete. Further difficulty with oil paint is due to the fact that the concrete often is not entirely dry before application of the paint.

I believe the only solution to this problem is completely to remove all paint. If the surface were sufficiently roughened to present a new surface, a coat of cement plaster could be applied and the surface coated with cement base paint of any color. Any good plastering or concrete contractor should be able to execute a satisfactory job. I am assuming that the pool is indoors. If it is outdoors, the additional hazards of alternate freezing and thawing make pool maintenance difficult.

From both an appearance and sanitary standpoint, the only really satisfactory surface for a pool is a tile lining. The basic procedure would be the same as that outlined above with the application of a tile surface in place of the cement paint. It would be more costly, of course, but much more satisfactory.—A. F. GALLISTEL, *director, physical plant, University of Wisconsin.*

Campus Safety Measures

Question: What are the salient features of a college safety program? What are other institutions doing?—L.S., Utah.

ANSWER NO. 1: At California Institute of Technology our accident prevention, fire prevention, and industrial health coverages are directed by a qualified safety engineer who is at-

tached to the business manager's office through the personnel director's office.

The safety coverage applies to faculty, student body, and all institute employes alike. A well equipped medical center conducted by a full-time physician and nursing staff is at the service of all institute groups. The traffic regulation and enforcement is supervised by the superintendent of buildings and grounds and is carried out by the Cal Tech guard detail.

Regular inspections of all facilities and equipment are made by the safety engineer. The survey of hazards is made, and his recommendations regarding control of existing or potential accident causes are forwarded to management and supervision, which rectifies or eliminates the condition. The cooperation and interest of management and supervision in the safety program is the chief factor that provides a safe and healthful environment throughout the institute and its projects.—STUART M. SEELEY, *safety engineer, California Institute of Technology.*

ANSWER NO. 2: First of all, our university has a safety committee. The chairman, head of the department of mechanical engineering, teaches courses in industrial safety. Members are the director of plant and facilities, the maintenance engineer, deputy chief of the campus fire department, and members chosen from the faculty.

Every year at the opening of the fall semester student fire wardens and alternate fire wardens for all residence halls and fraternities are appointed by the dean of men and the dean of women. General meetings are held and training is given in the matter of what to do in case of fire, including the use of fire extinguishers, and what to do to prevent the creation of fire hazards. After the general meetings, each fire warden studies the area for which he or she is responsible for available exits, location of extinguishers, and such things, and holds a meeting of residents of that area. In this way every

resident is given information concerning what to do to eliminate causes of fire and what to do should a fire occur.

Fire drills are held at residence halls for women. For the purpose of eliminating fire hazards, periodic inspections are made by university employes and semiannual inspections are made by inspectors from the state insurance department.

Instructors operating power equipment in shops or laboratories and instructors having charge of laboratories in which accidents might occur readily are given instruction on safety so that they in turn may tell the students how to avoid accidents. Furthermore, such instructors are taught what to do in the event an accident should occur in a particular laboratory or shop. Whenever a student has an accident while performing classroom work, a special report is prepared for the committee. The object of this, of course, is to study the incidence of accidents and initiate preventive measures.

As for traffic on campus roads, a speed limit of 20 m.p.h. is enforced and two daytime policemen are on duty. As roads are not wide, no parking is allowed on them at any time. Traffic discipline is enforced by the appropriate student dean on complaint of the policemen. The type of discipline varies, but chronic offenders are prohibited from driving on the campus.—HENRY DOTEN, *business manager, University of Maine.*

Uniforms for Employes

Question: We are thinking of providing uniforms for our maids and food service employes. What is the practice among colleges: Do they provide uniforms, and are they laundered at college expense?—F.B., Ill.

ANSWER: At Grinnell College maids, janitors and foods department employes are required to wear uniforms. In every case the college furnishes the uniform and it is laundered at college expense. However, the buildings and grounds crew or maintenance men are not required to wear uniforms.—LOUIS V. PHELPS, *former treasurer, Grinnell College.*

NEWS

**Tighten Provisions Governing G.I. Enrollees . . . President Meets With Committee
Planning Conference on Children and Youth . . . Surplus Property Regulations
Issued . . . May Revive Vets Educational Facilities Program . . . Insures Faculty**

Washington Correspondent: BEN BRODINSKY

Congress Rules Schools Must Operate Year Before Accepting G.I. Enrollees

WASHINGTON, D.C.—Congress has tightened provisions governing veterans' education.

In a new law, appropriating money to the Veterans Administration for 1950, Congress ruled:

1. Schools now must be in operation on their own for at least a year before they may accept veteran enrollees at government expense under the G.I. bill.

V.A. instructions, amplifying the law, explain that the effective date of a school's operation "will be the date on which a full schedule of instruction was commenced by the school to a minimum of 25 students for which the school collected tuition."

Instructions also state that the school must have been in continuous operation under substantially the same ownership and management for a full 12 month period. The one-year minimum does not apply to tax supported colleges and universities or to their branches or extensions.

2. Schools must negotiate fair and reasonable tuition rates with the Veterans Administration when they have no "customary" cost of tuition before they may accept veteran enrollees at government expense.

A school is not regarded as having a customary tuition charge, the law adds, when the majority of students are veterans training under federal training programs or if the school was established after June 22, 1944, date of enactment of the G.I. bill. Institutions dissatisfied with the rates set up by V.A. may appeal to a newly created Veterans' Tuition Appeals Board.

3. Congress once more emphasized that the government will not pay for avocational or recreational courses. Veterans will be obliged to prove that

their courses are essential to their employment or will serve them in their future business or occupation. On the basis of this legal prohibition, V.A. decided that certificates of eligibility issued to veterans will now include (1) the name of the course a veteran wants to take, and (2) the name of the approved school he wants to attend.

The new type of certificate will be good only for the listed course in the school named.

The additional information on certificates of eligibility will "aid V.A. in its efforts to help veterans get re-adjusted to civilian life, rather than obtain training for a recreational or avocational purpose," V.A. explained.

Towns Unable to Pay Share for New Community Colleges

ALBANY, N.Y. — At a recent hearing conducted by the board of trustees of the State University of New York, it was felt that, although new community and liberal arts colleges are needed throughout the state, it would be difficult for the local communities involved to pay for them.

Under present legal provisions, it is possible for cities to ask the university trustees for a two-year community college if it can be established that a need exists. The state would be responsible for paying half of the capital outlay and a third of the operating costs thereafter. The communities would be expected to pay the rest.

The educators and governmental leaders representing the various communities throughout the state insisted that New York State would have to assume most of the cost of operating these colleges if they were to be launched, as the communities were unable, under the present tax loads, to assume any additional levies.

President Truman Gives Objectives of Conference on Children and Youth

WASHINGTON, D.C.—The Mid-Century White House Conference on Children and Youth will begin Dec. 3, 1950, President Truman announced.

A 52 person committee held its first meeting in September to plan the event. The group was greeted by President Truman and immediately went to work under the chairmanship of Oscar R. Ewing, Federal Security Administrator. Its job during the coming months is to work with state and local officials in spotting outstanding services for youth now being carried on, which the conference might spotlight as national examples for all communities to follow.

The mid-century conference is the fifth in a series called by presidents every 10 years since 1901. The 1950 conference has been given these objectives by President Truman:

1. Bring together in usable form pertinent knowledge related to the development of youth and children and indicate areas in which further knowledge is needed.

2. Examine the environment in which youth and children are growing up, with a view to determining its influence upon them.

3. Study the ways in which the home, the school, the church, welfare agencies, and other social institutions are serving the needs of youth.

4. Suggest means whereby these proposals may be communicated to the people and put into action.

On the committee planning the conference are the following higher education leaders: Dr. Raymond B. Allen, president, University of Washington; Francis Bacon, University of California, and A. J. Brumbaugh, vice president of the American Council on Education.

NEWS

Issue Regulations for Transfer of Surplus Government Property

WASHINGTON, D.C. — First regulations for the transfer of real and personal surplus property from government agencies to educational institutions under the 1949 Surplus Property Law were released by Jess Larson, administrator of general services. They are known as Temporary Regulation 6 (personal property) and Temporary Regulation 7 (real property).

Regulations instruct all executive agencies of the government, military and civilian, to report excess personal and real property by letter to the general services administrator. He will review the lists to see what items, if any, may be utilized by other government agencies. Federal needs must be served ahead of educational needs, according to the law. If no other government agency can utilize the excess property, it becomes "surplus" and is available for education.

The personal property regulation says that the federal security administrator, who supervises the Office of Education, shall have the right to look over the lists of surplus at the same time that the general services administrator is screening them for government agencies. If the federal security administrator finds items useful for education he may request that they be turned over to the Office of Education for donation to schools and colleges. If the general services administrator approves, the property is tagged for education.

The regulation does not prescribe how specific items are to be transferred to a school or college. It does state that cost of shipping, packing and handling must be paid by the school.

How and when specific surplus items are to be transferred to individual schools and colleges, once the property is under control of the federal security administrator, is to be decided by the state agency for surplus property. Washington officials strongly urge that school and college executives take up all questions of personal property with their state agencies, usually located in state departments of education.

To help the state agencies for surplus property, the Office of Education

will increase its staff of field representatives for surplus property from 17 men to 25. The field representatives will be located close to the source of the property, usually army area headquarters. They will be in touch with the state agencies to see that property within a specified region is distributed equitably among the institutions in that region.

The regulation concerning real property also gives the federal security administrator a right to look over lists of facilities for possible educational use at the same time that the general services administrator is reviewing them for allocation to other government agencies.

"When it is determined that real property is surplus (to any possible government use), the federal security administrator may recommend to the administrator of general services that such property be assigned to the federal security administration for disposal to education," the regulation says in part.

The Office of Education is adding several consultants to its staff to advise on the usefulness of surplus real estate to education.

University Insures Its Staff and Faculty

TAMPA, FLA.—The University of Tampa recently established a life and accident insurance coverage program for all its staff and faculty of 86 members. The insurance will provide three months' hospitalization with \$10 a day for hospital and medical expenses and with a provision of \$5000 in case of death. All faculty members are assured of continuation of salaries for one complete semester, in case of illness. The program includes both academic and nonacademic members of the university staff, with all expenses in the program being met by the university.

New Branch for Cornell

ITHACA, N.Y.—Cornell University announced the establishment of Cornell Films, a new branch of the university's television interest. This new organization will undertake the production of sound motion pictures for use in education, industry and television, according to an announcement by Cornelius W. de Kiewiet, acting president of the university.

N.A.E.B. Schedules Regional Meetings for October-November

CHICAGO. — In order to promote interest and activity in college purchasing problems, the National Association of Educational Buyers is launching a series of regional meetings for the fall and winter months. For October and November the dates and location of the meetings are indicated, as is the name of the college official serving as host and chairman for the local meeting.

New England: Oct. 5-7, Little Sunapee, N.H., Herbert Johnson of Amherst College; *Washington-Maryland-Virginia:* Oct. 10, Washington, D.C., S. L. Valenziano, Johns Hopkins University; *Oregon-Washington-Idaho:* Oct. 13, Portland, Ore., Robert W. Fenix of Willamette University; *Northern California:* Oct. 17, St. Mary's College, Calif., L. G. Baker of the University of California; *Southern California:* Oct. 19, Los Angeles, Dan L. McNamara of the University of Southern California.

Western Pennsylvania: Oct. 18, Beaver Falls, Pa., Stewart McCready of Geneva College; *Upper New York:* Oct. 19-20, Canton, N.Y., H. W. Pike, Colgate University; *Iowa-Nebraska:* Oct. 20-21, Lincoln, Neb., C. A. Donaldson of the University of Nebraska; *Minnesota-Dakotas:* Oct. 25, Brookings, S.D., Bruce Pollock of Carleton College; *Kansas-Missouri:* Oct. 26-27, Kansas City, Mo., Col. L. B. Wikoff of Wentworth Military Academy; *Rocky Mountain:* Oct. 28-29, Fort Collins, Colo., Eric A. Johnson of Utah State Agricultural College; *New York-New Jersey-Philadelphia:* Oct. 30-Nov. 1, Buck Hill Falls, Pa., Harry Westenberger of Temple University.

Michigan: Nov. 10, Berrien Springs, Mich., Raymond E. Amerman of Wayne University; *Texas-Oklahoma-Arkansas:* Nov. 14-15, Fort Worth, Tex., Mrs. M. K. Doss of the University of Texas; *Southern Illinois:* Nov. 16-17, Jacksonville, Clarendon Smith of MacMurray College; *Southeastern:* Nov. 18-19, Atlanta, Ga., Charles Hayes of Emory University; *Indiana:* Nov. 21, Indianapolis, N. A. Schull of Ball State Teachers College; *Northern and Southern Ohio:* Nov. 16-17, Mansfield, E. P. Gilmore of Ohio State University.

Veterans Educational Facilities Program May Be Revived

WASHINGTON, D.C. — The expiring Veterans Educational Facilities Program may be revived.

Since 1946, this program has brought to colleges and universities 17,000,000 square feet of floor space for instructional facilities and equipment valued at more than \$100,000,000. Ernest V. Hollis of the Office of Education has directed activities since their beginning.

Although the Veterans Educational Facilities Program has been winding up its affairs, recent developments suggest the possibility for revival:

1. The 1949 Surplus Property Law, which abolished all previously enacted surplus property legislation, left the Veterans Facilities Program intact. The transfer of surplus property to institutions serving veterans, legal experts believe, can therefore continue as long as there are veterans in colleges to be served and as long as facilities and equipment are declared surplus by government agencies.

2. Secretary of Defense Johnson's drive to discontinue military installations as an economy move brought to the surface new types of surplus facilities and equipment.

3. College executives continue to show an interest in surplus structures and equipment to serve veterans.

The Veterans Educational Facilities Program can operate independently of the donations to colleges authorized by the 1949 surplus property act. Actual revival of the V.E.F.P. will depend on arrangements to be worked out between the Office of Education and the general services administration.

Subcommittee on Education Dissolved

WASHINGTON, D.C.—Chairman Lesinski of the House education and labor committee dissolved his subcommittee on education which had been headed by Rep. Barden. This unexpected action brought to a climax the feud which Mr. Barden and Mr. Lesinski waged during the summer months.

Mr. Lesinski also ended all other subcommittees at the same time. On September 21 he appointed an "investigating committee" on education and labor headed by Rep. Bailey (D.-W.Va.). This group will not have the usual powers of a subcommittee, holding hearings and approving legislation for action. It will merely "study the facts and pass these on to the full committee."

WASHINGTON, D.C. — The five-year federal aid program for medical education, sponsored by Senator Pepper (D.-Fla.), was approved by the Senate September 23. Authorizations are for grants to medical, dental, nursing and osteopathy schools to meet costs of instruction, enlarge facilities, and for scholarships. House has yet to act. Details were given in September issue, p. 42. . . . Adjournment date for Congress has been tentatively set for November 1. . . . Health, welfare and retirement plans are the new great objective of employees in all types of occupations, says the U.S. Labor Department. The "security" idea may hit educational institutions.

The Office of Education lost another top-drawer official. Edwin H. Miner, associate commissioner of education, resigned to accept a job with the Armed Forces Education Program. . . . Postal rates for college catalogs and educational periodicals will *not* be increased during this session of Congress. Bills calling for

postal increases have been pigeonholed. . . . Examinations for navy four-year college scholarships for boys 17 to 21 years of age will be held December 3 in all parts of the country. Navy recruiting offices have complete information. . . . A kit of 1024 what-to-read lists on jobs for use by college counselors has been published by the B'nai B'rith Vocational Service, 1424 16th Street, N.W. (\$3). Write for free sample sheet. . . . Washington wants to put on a big "educational effort" to observe its 150th birthday as a National Capital. The Senate has appropriated \$3,000,000 for the event; the House still has to act.

The bill seeking to create labor-education extension services has been approved by the Senate labor committee and by a House labor subcommittee. However, it will go no farther at this session. . . . The navy will discontinue three-year enlistment periods and go back to its peacetime program of recruiting 18 year olds for four or six years.

WASHINGTON AT A GLANCE

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Two New York Medical Colleges Get State Aid

NEW YORK CITY. — The board of trustees of the State University of New York has announced that grants-in-aid to Long Island College of Medicine and the College of Medicine at Syracuse University have been made available in the amount of \$560,000 and \$1,090,000, respectively.

The trustees previously decided to absorb the two colleges into the state university system as its down-state and up-state medical centers, but because of legal problems it has not been possible to make actual transfers.

"Because the present management of both schools will continue into the next year, no change will be made at present in existing tuition schedules of \$715 a year at Long Island and \$800 a year at Syracuse. The tuition rates to be set after the State University absorbs these schools are under special study," according to a statement by Dr. Alvin C. Eurich, president of the state university.

Negro Fraternity to Admit White Members

NEW YORK CITY.—Omega Psi Phi, second oldest Negro Greek letter society, which was organized in 1911 at Howard University, has announced that an interracial chapter will be started this fall at Rutgers University. The plan followed a decision by the national body to fight racial discrimination within Negro college organizations. To meet the requirements of the Rutgers administration, a chapter must obtain 20 members.

NEWS

Slight Revision in V.A.'s Certificates of Eligibility

WASHINGTON, D.C.—Veterans who have never had a course of training and now have unused certificates of eligibility — issued after Sept. 1, 1948—may use them as they are until March 1, 1950. After that date they will not be valid, the Veterans Administration has announced.

Those certificates may not be used for elementary flight, private pilot, and commercial pilot flight courses, or for any avocational courses for which veterans are required to prove that the training will serve a bona fide use in present or future business or employment.

Supplemental certificates of eligibility—issued before Sept. 12, 1949, to veterans desiring to change courses or schools—may be used for enrollment in current fall terms only until November 1, V.A. said. After November 1, and until March 1, 1950, the supplemental certificates no longer will be valid, with a single exception.

That exception is a supplemental certificate obtained by a veteran for the purpose of changing his school, but not his course, without loss of credit. But even in that case, the supplemental certificate will not be good if the course taken is flight training or avocational courses requiring justification.

Effective March 1, 1950, all outstanding supplemental certificates of eligibility, regardless of the purpose for which they were issued, will be void. Veterans will have to apply to local V.A. offices for new certificates after that date.

Select Site for National Football Hall of Fame

NEW BRUNSWICK, N.J.—College Field at Rutgers University, site of the first intercollegiate football game played between Rutgers and Princeton in 1869, has been selected as the site of the national Football Hall of Fame.

New Jersey interest in the shrine was evoked a few years ago when a Newark sportswriter cited Rutgers as a logical location for a football hall of fame. Numerous site proposals were considered, including, among others, Cazenovia, N.Y., Washington,

D.C., Boston and Philadelphia. The site selection committee, headed by Grantland Rice, concurred on the New Brunswick location. Final approval by the national committee, of which Adm. William F. Halsey is chairman, was announced September 12.

W. W. Blaesser Named Specialist for Student Personnel Services

WASHINGTON, D.C.—Student personnel services in colleges and universities should get a shot in the arm during the coming months as a result of two Washington actions.

The Office of Education appointed for the first time in its history a specialist for student personnel services. He is Willard W. Blaesser, on a one-year leave of absence from Washington State College, Pullman. He also has served with the universities of Montana, Chicago and Wisconsin.

Mr. Blaesser will be available for consultation to individual colleges and universities. He also will stand ready to help state, regional and professional associations concerned with problems of student admissions, orientation, educational and vocational counseling, administration of scholarships and loans, student housing and boarding, student health and social and recreational activities. He is writing to colleges and universities to learn firsthand what kind of help they want and the areas on which to concentrate first.

Almost at the same time with Mr. Blaesser's appointment, the American Council on Education released a revised edition of its "Student Personnel Point of View." This document, a rewrite of the 1937 edition, was prepared under the direction of the council's committee on student personnel work, of which E. G. Williamson is chairman.

Work Begins on New Cancer Research Center

NEW YORK CITY.—Columbia University officials announced the beginning of construction on the new \$2,000,000 cancer research center atop Vanderbilt Clinic at the Columbia-Presbyterian Medical Center, Broadway at 168th Street. The new structure is one of the first major steps in the hospital's \$5,100,000 development program.

Moat to Surround Men's Quadrangle at Brown University

PROVIDENCE, R.I.—Announcement of the \$10,000,000 building program for a men's quadrangle at Brown University has caused considerable interest, particularly in regard to the fact that a dry moat will completely surround the quadrangle. The two city-block quadrangle will provide housing for 750 students and will have a central refectory or dining hall.

Interest in establishing a moat surrounding the project was forthcoming because petty thievery in residence halls and fraternity houses has cost students as much as \$30,000 a year.

The new \$10,000,000 project will have three entrances, each guarded by a gatehouse with campus policemen on duty at all times. The main dining room will seat 1640 students, and there will be 17 perimeter dining rooms for fraternity men, in addition to a basement cafeteria that will serve 200 or more and will be utilized as a snack bar at night.

All buildings will be connected by an underground passage to carry heating ducts, and to permit students to get to the dining hall in bad weather.

Special Group Insurance Plan for Employees

CHAMPAIGN-URBANA, ILL.—The University of Illinois recently announced a special group plan of accident and sickness insurance for its faculty and staff employees. The program, which became effective October 1, will provide for hospital, medical and surgical expenses.

The benefits provided in the program are available to the university's employees at a monthly cost of \$1.35 for a single employee, \$2.90 for an employee and one dependent, and \$3.75 for an employee with two or more dependents. Premiums may be paid on an annual, semiannual or quarterly basis.

152 Get Study Awards

WASHINGTON, D.C.—The Department of State announced recently that 152 American graduate students had received awards under the Fulbright Act to study in the United Kingdom, Belgium and Greece during this academic year.

GIFTS AND BEQUESTS

• **Cornell University**, at the onset of the Greater Cornell Fund Campaign last November, announced receipt of an anonymous gift of \$1,500,000. This gift, it is now reported, was made by Mr. and Mrs. Walter C. Teagle of East Port Chester, Conn., for a men's sports building. Mr. Teagle is a graduate of Cornell and has been a member of the university's board of trustees since 1924.

• **University of Michigan** board of regents has accepted \$100,000 to establish a course of study leading to a master's degree in conservation. The gift was made by the Charles Lathrop Pack Forestry Foundation.

• **Southern Illinois University Foundation** has received cash and securities totaling \$24,530 as a scholarship endowment fund from the estate of the late Dr. Thelma Louise Kellogg. The principal will be used as an invested endowment, income from which is to provide one or more scholarships for deserving and needy students majoring in English.

• **University of Notre Dame** thus far in 1949 has been given \$233,817.87 by alumni and friends. Of the total amount contributed, \$138,532 was given by alumni and \$95,285 by non-alumni friends. The money will be applied to a \$1,750,000 science building to be erected.

• **Columbia University**, which received a bequest of approximately \$600,000 from the estate of the late William Nelson Cromwell, New York lawyer, will receive about \$300,000 more as a result of reallocation by the executors of a bequest made by Mr. Cromwell to the alumni association of Columbia's law school.

• **Northwestern University** alumni have contributed \$270,500 to their alma mater in the last year, according to a recent announcement.

• **Princeton University** reports gifts, grants and bequests totaling \$3,835,000 during the fiscal year ending June 30, according to the financial statement released by George A. Brakeley, vice president and treasurer of the university.

• **Columbia, Harvard, Princeton and Yale** universities have received approximately \$600,000 each for scientific research from the first distribution of funds from the Eugene Higgins Scien-

tific Trust of \$34,000,000. The United States Trust Company of New York, executor of the Higgins estate and trustee of the Higgins Scientific Trust, indicated that distributions will be substantially larger in succeeding years. The trust is one of the largest educational bequests in many years. An examination of published material indicates that there are only 10 foundations and public trusts in the United States with greater assets, including those set up by the Rockefeller and Carnegie philanthropies.

• **Cornell University** was named recently to receive \$600,000 of the \$750,000 estate of Waldo F. Tobey, former Chicago attorney. Most of the gift goes for the establishment of a scholarship fund. Another \$100,000 was put in trust for use by the Cornell chapter of Theta Delta Chi fraternity.

• **Alfred University** announced recently the joint sponsorship of a \$50,000 project with the brick manufacturers in New York for the purpose of research in producing more nearly uniform brick, as well as improving general manufacturing processes in the industry.

• **Trinity College** at Hartford, Conn., reported receipt of an anonymous gift of \$300,000 for a building and for partial endowment of the college libraries.

• **Alfred University** reported that alumni and friends contributed \$15,074.22 to the institution's continuous support program in 1948-49. The gifts represent a 41 per cent increase over the previous year's total.

• **University of Wisconsin** has announced that the Socony-Vacuum Oil Company awarded \$2000 to the university for continuation of a fellowship for fundamental research in organic chemistry during the period from July 1, 1949, to June 30, 1950.

NAMES IN THE NEWS

D. E. Walker of Butler University, Indianapolis, has been named president of Milligan College, Milligan College, Tenn. He will succeed **Virgil L. Elliott**, who resigned in 1948.

Bruce Benedict, senior accountant at the University of Illinois branch at Galesburg for two years, has been appointed auditor of Southern Illinois University at Carbondale.

The **Very Rev. James F. Maguire, S.J.**, formerly rector of West Baden College, West Baden, Ind., has been named president of Xavier University, Cincinnati.



Rev. J. F. Maguire

He will succeed the **Very Rev. Celestin J. Steiner, S.J.**, whose term of office of nine years was the longest in the history of the university and one of the longest in the modern history of Jesuit educational institutions. The **Rev. Fr. Steiner** has succeeded the **Very Rev. William J. Millor, S.J.**, as president of the University of Detroit.

Rev. Harold W. Richardson has been appointed president of Franklin College, Franklin, Ind., to succeed **William G. Spencer**, recently retired. Dr. Richardson was formerly minister of the First Baptist Church at Jackson, Mich.

Dr. Morris Wee, formerly head of the student service division of the National Lutheran Council in Chicago, recently was elected president of Carthage College, Carthage, Ill. He succeeds **Dr. Erland Nelson**, who resigned to return to teaching.

Capt. Walter J. Lee, chief of the police department on the Berkeley campus of the University of California, recently retired after 34 years of service with the university, according to a recent announcement by **William J. Norton**, business manager.

Lillian Watt, former manager of the Stadium Club dining halls at Ohio State University, has been named manager of dining services at Wilmington College, Wilmington, Ohio. Miss Watt succeeds **Mrs. Raymond Wilson**, who resigned to accept an appointment as dietitian at Wittenberg College, Springfield, Ohio.

Dr. Harrison Claude Hardy, formerly superintendent of the White Plains school system, has been named special assistant to **Dr. Henry J. Arnold**, president of Hartwick College, Oneonta, N.Y. Dr. Hardy will devote the major portion of his time to promotional activities concerned with fund raising and student enrollment.



Dr. H. C. Hardy



Dr. J. T. Hoggard

Dr. John T. Hoggard has been named president of Wilmington College, Wilmington, N.C., to succeed T. T. Hamilton Jr., who resigned to accept a position as director of secondary education, Virginia State Board of Education. Dr. Hoggard was chairman of the board of education for New Hanover County in North Carolina.

Elias Lyman Jr., former assistant to the president of Northwestern University, has been named acting president of the University of Vermont. He succeeds John S. Millis, recently appointed to the presidency of Western Reserve University.

Fred A. Walker, vice president of the College of the Ozarks, Clarksville, Ark., has been named acting president until a successor to Dr. Wiley Lin Hurie can be appointed.

James S. Malseed Jr., formerly associated with the accounting firm of Franke, Hannon & Withey, has been named bursar of Wells College, Aurora, N.Y.

David D. Demsky has been named purchasing agent at the University of Vermont to succeed Carl A. Palmer. Florence K. Brodie has been named administrative assistant in the business office of the university.

Russell Howard Grele of Seymour, Conn., has been named division manager of purchases and stores at Yale University. He succeeds Dalton V. Garstin, who retired in July as purchasing agent of the university.

Robert P. Lee, administrative assistant in the division of residence halls at the University of Wisconsin, has been named director of residence at Bennington College, Bennington, Vt. He will be responsible for operation of the dining rooms and kitchen, and for the maintenance of the houses of residence on the campus.

Horace A. Hildreth, former governor of Maine, has been named president of Bucknell University at Lewisburg, Pa. He succeeds Dr. Herbert Lincoln



H. A. Hildreth

Spencer, who resigned to accept a position as executive director of the Samuel H. Kress Foundation.

Ruth Harder has been named dietitian at Hesston College, Hesston, Kan., to succeed Naomi Brubaker, who recently resigned.

G. Eldredge Hamlin, vice president and comptroller of Principia College, Elmhurst, Ill., by action of the board of trustees has had his title changed to that of vice president and business manager. Franklin H. Pike, assistant comptroller, will become comptroller, and Bertram T. Clark, whose present title is that of business manager, will become director of plant operations.

Paul A. Reid, comptroller of the North Carolina State Board of Education, has been named president of Western Carolina Teachers College, Cullowhee, N.C. He will succeed the late H. T. Hunter.

Sr. Mary Timothea, O.P., has been named president of Rosary College, River Forest, Ill., to succeed Sr. Mary Peter, O.P.

Sr. Antonine O'Brien has been named president of the College of St. Catherine, St. Paul, to succeed Sr. Antonius.

Dean John H. Russel has been named acting president of Frances Shimer College, Mount Carroll, Ill., during the leave of absence granted to Albin C. Bro, president. Dr. Bro has been appointed cultural attaché for the State Department in Korea.

Harry C. Krimmel, business manager of Westminster Choir College, Princeton, N.J., died on August 29 as the result of a heart attack. He had returned only two days earlier from an extended vacation in Mexico.

Dr. Paul Grossheusch, president of Mission House College at Plymouth, Wis., was killed recently in an automobile collision.

Dr. J. N. R. Score, president of Southwestern University, Georgetown, Tex., died recently at the age of 53. Dr. Score had been ill with a heart ailment since May.

DIRECTORY OF ASSOCIATIONS

Association of College and University Business Officers

Central Association

President: Fred W. Ambrose, State University of Iowa; secretary-treasurer: L. R. Lunden, University of Minnesota.

Eastern Association

President: Boardman Bump, Mount Holyoke College; secretary-treasurer: Irwin K. French, Middlebury College.
Convention: December 4-6, Chalfonte-Haddon Hall, Atlantic City, N.J.

Southern Association

President: C. B. Markham, Duke University; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association

President: Alf E. Brandin, Stanford University; secretary-treasurer: James R. Miller, University of California.

Schools for Negroes

President: A. I. Terrell, Winston-Salem Teachers College; secretary: L. H. Foster Jr., Tuskegee Institute.

Association of College Unions

President: Donovan D. Lancaster, Bowdoin College; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.
Convention: April 26-29, 1950, New Ocean House, Swampscott, Mass.

Association of Physical Plant Administrators of Universities and Colleges

President: L. L. Browne, University of Arkansas; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Convention: May 1950, Yale University, New Haven, Conn.

American College Public Relations Association

President: E. Ross Bartley, Indiana University; secretary-treasurer: Edward P. Vonderhaar, Xavier University, Cincinnati.

College and University Personnel Association

President: George W. Armstrong, University of Pennsylvania; secretary-treasurer: Ruth Harris, University of Illinois.

National Association of College Stores

President: Herbert Hays, Berea College; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

National Association of Educational Buyers

President: Holger B. Bentsen, George Williams College; secretary-treasurer: Bert C. Ahrens, 45 Astor Place, New York, N.Y.
Convention: May 3-6, 1950, Houston, Tex.

PRODUCT INFORMATION

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Dustless Power Sweeper
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Micro-Projection Device
- 491 The American Laundry Machinery Co.
Front-Loading Cascade Washer
- 492 Krueger Metal Products Co.
Tubular Steel Chair
- 493 Jack C. Coffey Co.
Filmstrip Library Cabinet
- 494 Frigidaire Division
Refrigeration Equipment
- 495 Reynolds Metal Co.
Reynolds Restaurant Wrap
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Electric Potato Peeler
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Caster Clip
- 499 D. W. Onan & Sons, Inc.
Diesel Electric Plant
- 500 Milo Harding Co.
Tempo Duplicator
- 501 M.D. Pure Air Conditioner Div.
Lightweight Air Conditioner

Key

- 502 The Edwin F. Guth Co.
4-Lite Guthlite
- 503 Frigid Fruit Co.
Refrigerated Apple Vender
- 504 Plibrico Jointless Firebrick Co.
Incinerator Water Heater
- 505 The Ice-Flo Corp.
Automatic Ice Maker
- 506 W. B. Connor Engineering Corp.
Refrigerator Odor Eliminator
- 507 SirSteak Machinery Inc.
Steak Tenderizer
- 508 Norcor Manufacturing Co., Inc.
Auditorium Chairs
- 509 General Fireproofing Co.
Divide-A-Files
- 510 Eastman Kodak Co.
Color Slide File
- 511 Huntington Laboratories, Inc.
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- 512 Monsanto Chemical Co.
Mildew Inhibitor
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"Chalkboard Setting System"
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Catalog
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"Backwater Sewer Valves"
- 531 Cannon Electric Development Co.
Bulletin TP-1

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Ease of Installation

IS A FEATURE OF *Wakefield*
LIGHTING EQUIPMENT



Almost like hanging a picture . . .



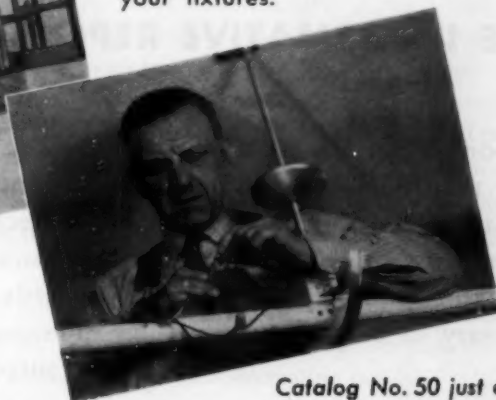
Everything hooks on to pre-installed straps . . .



A one-man job . . .



The secret is the pre-installed strap. First step is to secure a mounting strap to the outlet box. Next run a chalk line along the ceiling, measure off the required intervals and then attach the other mounting straps in the line. The easily assembled units are then hung on the mounting straps, unit by unit, the supporting band on the previously mounted unit providing the reflector support for the end of the next unit. A steel channel insures rigidity for the wireway, and snap-on wireway covers give accessibility for wiring. Writes one power company engineer: "Contractors have been vociferous in their praise of the ease with which they were able to install your fixtures."



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Wakefield Over-ALL Lighting



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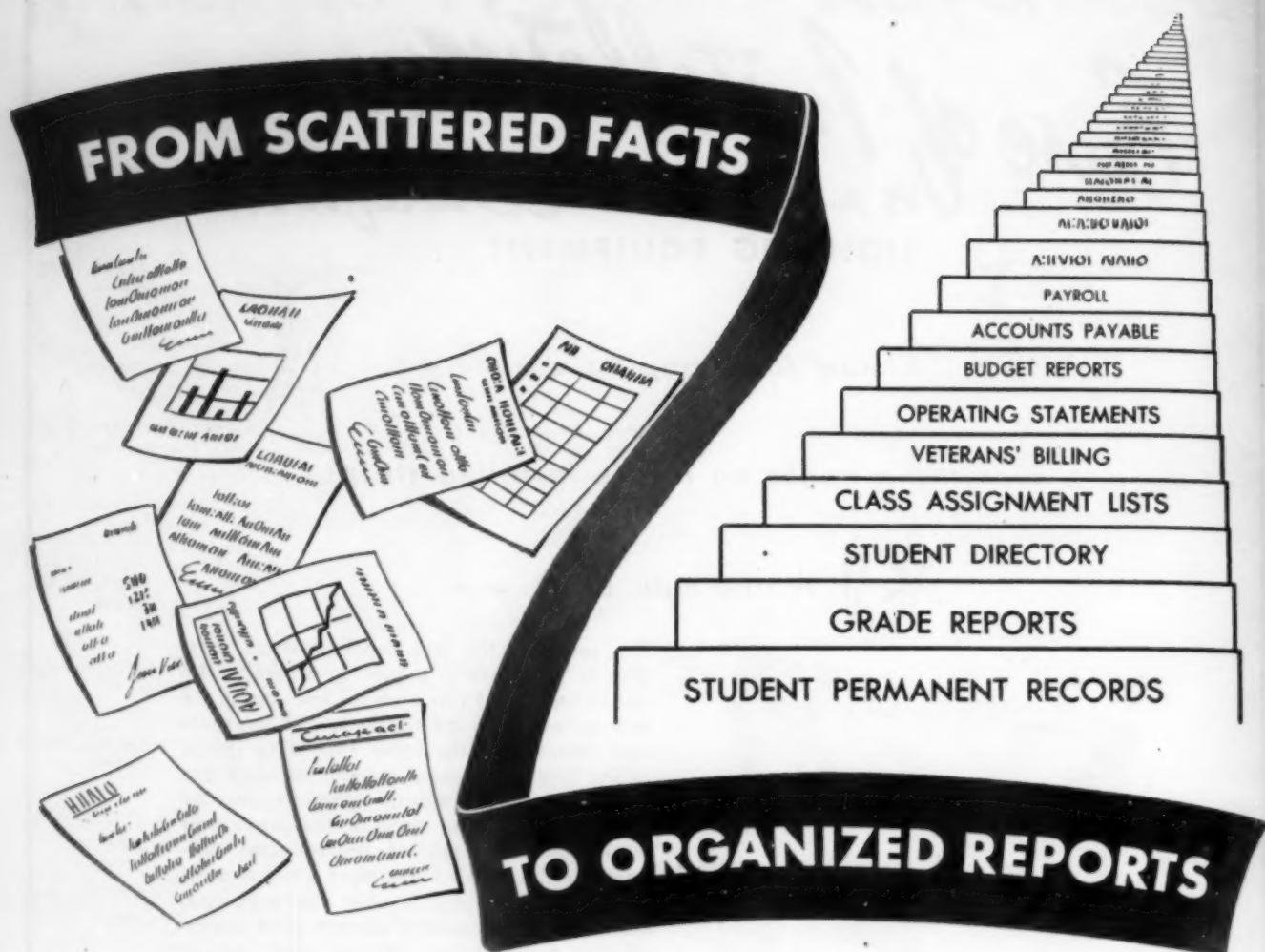


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Nothing is so important to efficient business administration as the ability to grasp the full meaning of situations as quickly as they arise. But nothing is so unprofitable as *unorganized facts*, which fail to provide the information necessary to meet these situations effectively.

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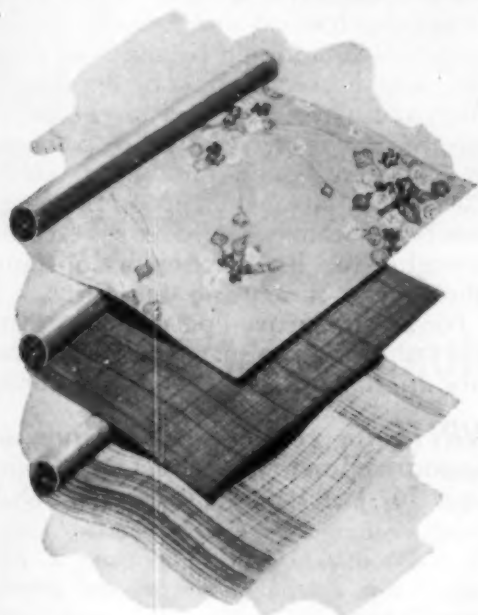
Fabron
FABRIC WALL COVERING
PATTERN 12345-10
FREDERIC BLANK & CO. INC.
NEW YORK, N.Y.

Underwriters' Laboratories, Inc.
INSPECTED
DECORATIVE BUILDING MATERIAL
FIRE HAZARD CLASSIFICATION
(Rate of the 27th U.S. Bureau of Standards)
CLASS A, A.D. - A.T.S.

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Every roll of FABRON bears the label of the Underwriters' Laboratories, Inc. . . . your assurance of proved resistance to fire.

When considering fire - prevention measures... what about your wall treatment?



FABRON offers more than 160 patterns and colors, many of them styled for use in dormitory rooms, classrooms, corridors, offices, etc.—a latitude of choice unmatched by conventional treatments. The material is furnished in easily handled rolls, 27" wide, and is applied in the same manner as wallpaper.

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Before you decorate or redecorate with treatments not possessing *recognized* fire-resistance, investigate FABRON. Our estimating service will be glad to submit appropriate samples and to estimate the cost, within your present decorating budget.

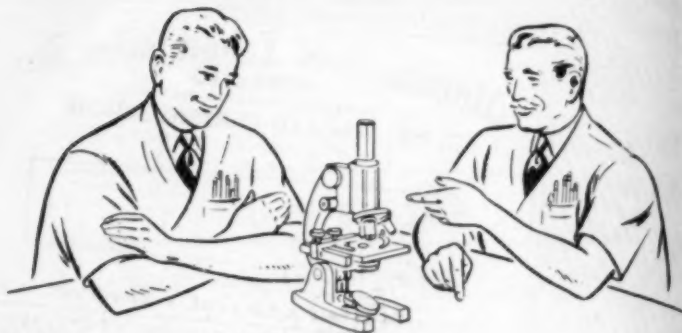
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Represented in Canada by The Robert Simpson Company Limited—Special Contract Division

Fabron
— the canvas-plastic-lacquer wall covering

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ADVANTAGES



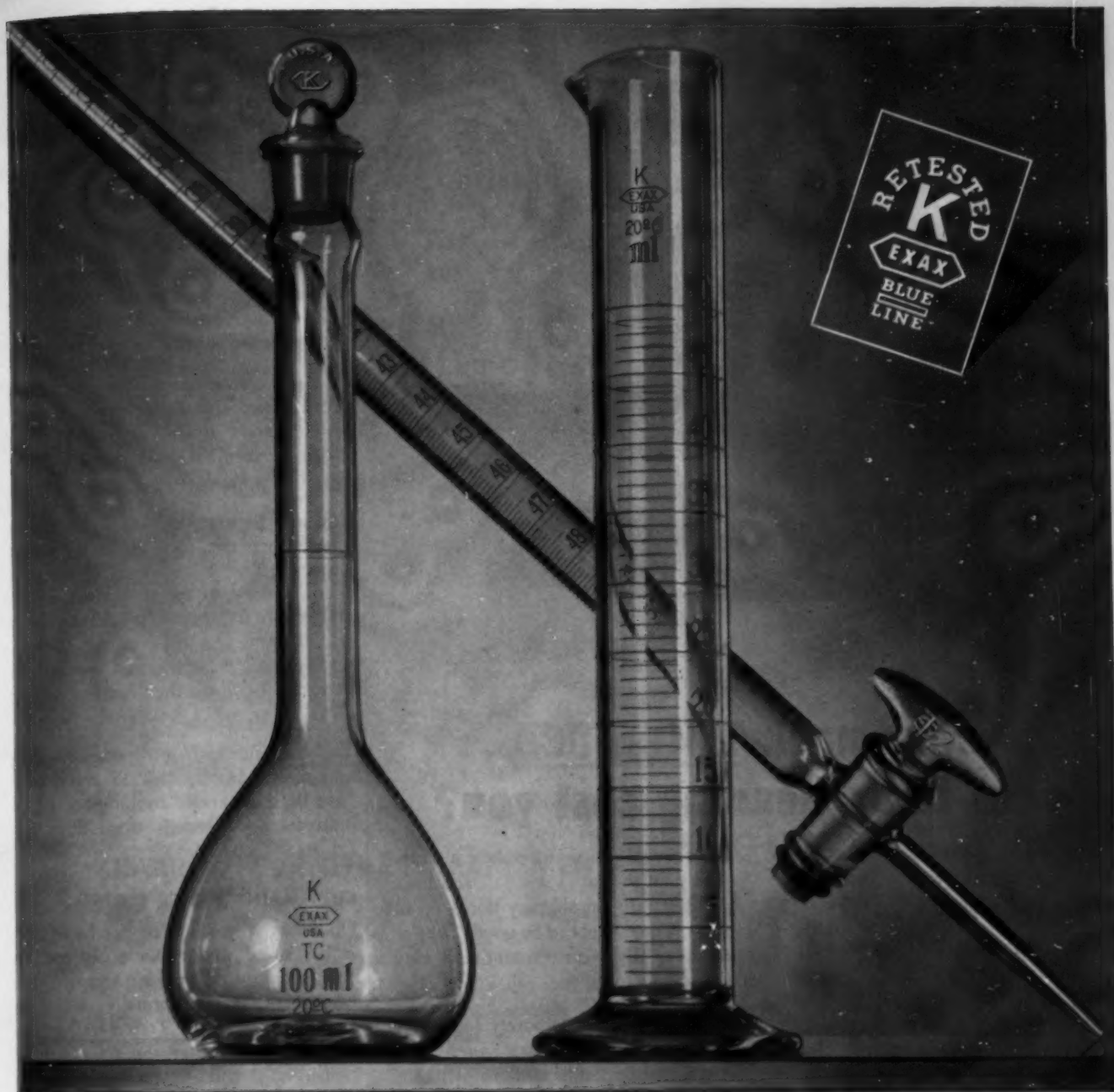
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Look at your annual floor upkeep bills and you're in for some surprises.

Notice: labor takes 90% or more of your floor dollars. If you use floor cleaners that work slowly . . . if your wax "walks off" and gets slippery after moderate traffic and needs frequent stripping and reapplication . . . extra labor boosts your costs way out of line!

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The Legge System can save *you* money. To get the facts, clip the coupon to your letterhead and mail. Walter G. Legge Company, Inc., New York 17, N. Y. Branch offices in principal cities.

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Title _____

Types of flooring _____

Area: _____ Sq. ft. CB-1

LEGGE SYSTEM
of Safety Floor
Maintenance

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RESANDING of gymnasium floors POSTPONED by new safety polish

GYMNASIUM FLOORS can now be protected from heavy wear, to avoid periodic resanding and refinishing, with Trafco—a floor polish that shields floors from traffic; yet is actually *less* slippery than an unpolished floor.

Its slip-resistant, protective surface has proved exceptionally resistant to wear. It withstands "burns" and smudges for a considerable time. When they finally develop, it holds them on the surface.

The soiled surface can easily be cleaned and restored by applying more polish. Because Trafco contains a cleaning agent, it removes the dirt on the surface and repolishes the floor—in one operation. Repeating this procedure as necessary restores the finish . . . without the need to sand down the floor and refinish it.

Trafco's abilities to postpone resanding almost indefinitely and to resist wear have been confirmed by Elmendorf Laboratories, independent wood floor specialists.

CUTS MAINTENANCE COSTS

On floors where Trafco has been used, it has saved maintenance expense. In one school, wood flooring received such heavy wear that it normally needed re-waxing *every week*. Trafco was tried—and five weeks later the same coat of polish was still serviceable. Another school replaced its annual summer resanding with a Trafco application. Because of the two-in-one action, one man can restore the flooring at the rate of 1,000 square feet per hour.

A SAFE POLISH

Underwriters' Laboratories, who tested and approved Trafco, found that it makes wood floors *less slippery* than the same floors without polish. It can be buffed to as high a gloss as desired. Buffing only makes it safer.

Trafco Floor Polish is designed for use on wood and cork floors, but is also effective on linoleum, magnesite and other floors. It is a product of the Legge System of Safety Floor Maintenance. For further details, send the coupon at the left of this page.



WOOD

*Unexcelled for
friendly warmth*



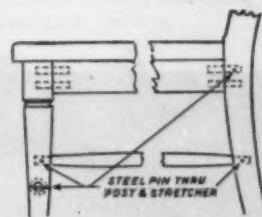
CARROM FURNITURE CRAFTSMEN *Build* FOR THE DECADES

Attractive, well-made Wood Furniture combines, to a high degree, both literal and figurative warmth and friendliness. From a practical, physical standpoint wood, because it is to a great extent a non-conductor of heat, has a friendly, comfortable "feel" that invites use. But over and above this . . . wood possesses a natural emotional warmth that is normally generated by intimate, friendly things.

Carrom Wood Furniture possesses, in a great measure, these characteristics of "Friendly Warmth" . . . appealing to the natural instincts of the average person. This is especially desirable for institutional use

where the individual finds himself more or less remotely situated from home and friends. Both physically and psychologically, he enjoys the gracious and beneficial influence of "friendly warmth", generated by the ageless spirit and fibre of WOOD!

Carrom Wood Furniture is made especially to meet institutional needs . . . college and nurses' dormitories, hospital rooms, ward or lounge. Whether used to furnish an entire building or just a room, its basic styling, simple lines, functional adaptability and strong construction combine with its inviting atmosphere of "friendly warmth" to provide a maximum degree of intrinsic worth.



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It is not enough that Carrom posts, legs and rails have a tight drive-fit. As further assurance of serviceability, a wood pin or metal insert is driven through the joined part to engage the post, leg or rail and hold it more securely.

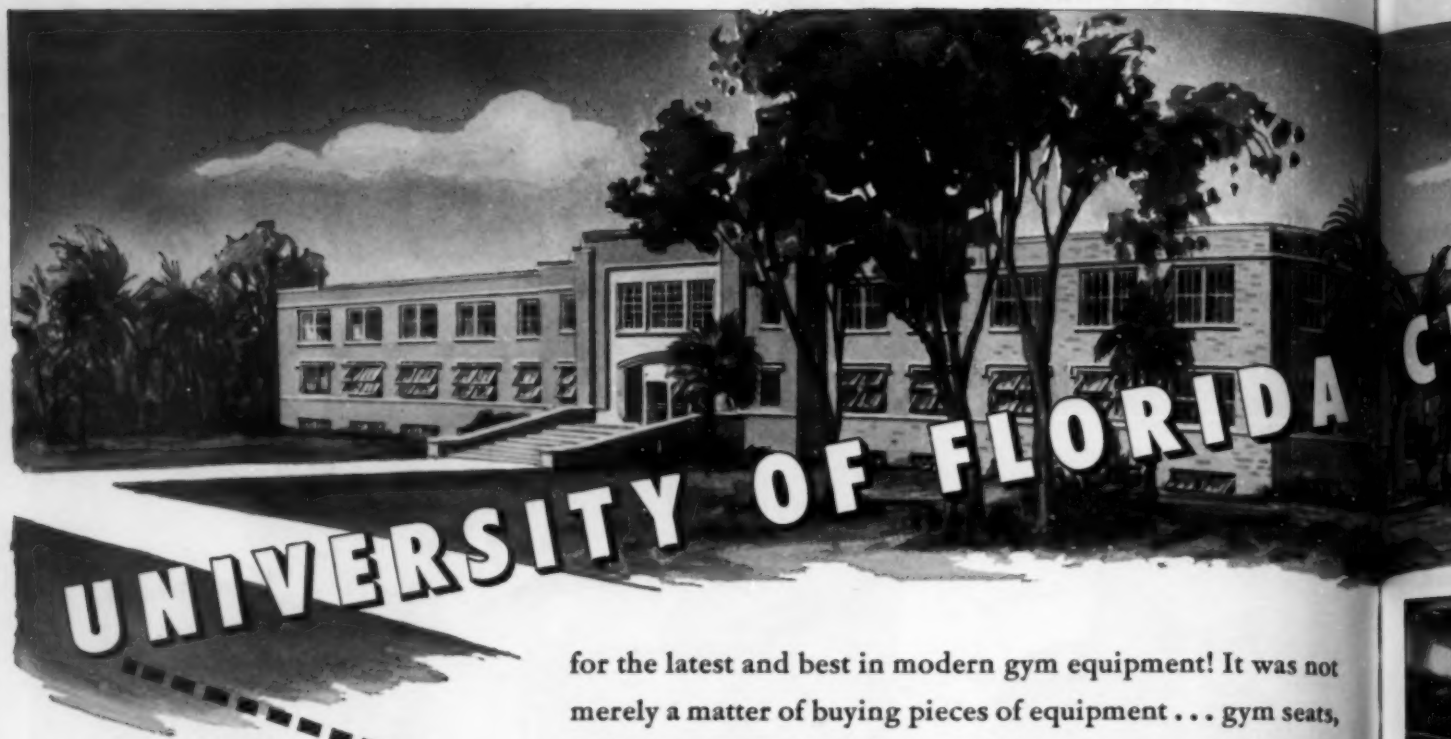
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Equipment Installation by:

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for the latest and best in modern gym equipment! It was not merely a matter of buying pieces of equipment . . . gym seats, lockers, wire baskets, basketball backstops . . . Medart was in the picture at the "blue-print" stage, when the *planning* was done.

Medart Engineers met installation problems before they arose . . . and the result: one of the finest gymnasiums in the country. Another reason why more and more schools and universities are modernizing with Medart! For Seventy-Five years the leader in serving the Nation's schools.



MEDART BASKETBALL BACKSTOPS — Two main-court and eight cross-court backstops installed. All are swing-up type. Main-court backstops are transparent permitting view from rear.

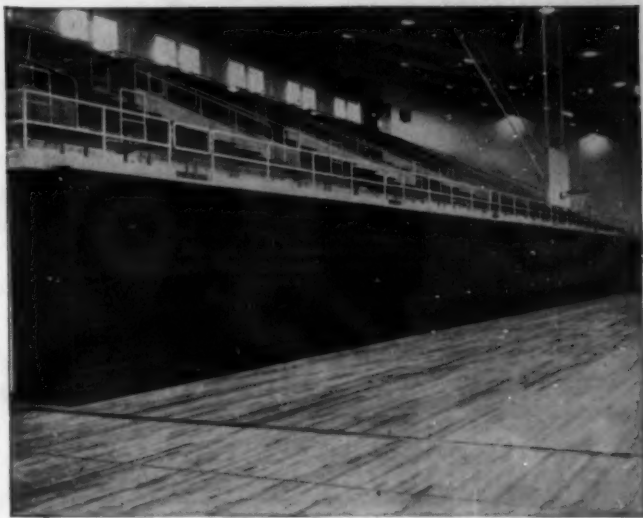


MEDART STEEL LOCKERS — Seven locker rooms completely equipped with Medart Steel Lockers. Various types, including single-tier, double-tier and golf lockers.

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MEDART TELESCOPIC GYM SEATS (OPEN)—Several thousand additional seats are provided when Medart Telescopic Gym Seats are opened. Several sections of movable type Telescopic Gym Seats furnished which can be rolled onto floor for additional seating at end of main court.



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(Porcelain on Steel)

TOILET COMPARTMENTS

Why the Bare Functional Type of Toilet Room Is No Longer Suitable

The ascendancy of good taste combined with new concepts of sanitation and convenience in toilet room environments makes the bare functional type of toilet room inadequate according to today's standards.

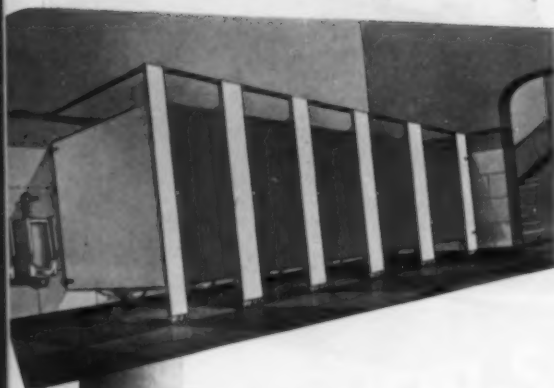
Toilet compartments usually dominate a toilet room, influence the toilet room environment and help to fulfill modern concepts of sanitation and convenience.

Sanymetal "PORCENA" Toilet Compartments are fabricated of ageless and fadeless material, porcelain on steel, which is a glass-hard, stainless material that always looks new, does not absorb odors, is moisture- and rust-proof, and resists the corroding of ordinary acids. The glistening "PORCENA" finish, which can be wiped clean as easily as a porcelain table top, requires no painting or refinishing.

Sanymetal "PORCENA" Toilet Compartments combine the results of over 35 years of specialized skill and experience in making over 100,000 toilet room installations. Ask the Sanymetal Representative in your vicinity (see "Partitions" in your phone book for local representative) for further information about planning suitable toilet room environments. Refer to Sanymetal Catalog ^{21b}/₈₆ in Sweet's Architectural File for 1949.

THE SANYMETAL PRODUCTS CO., INC.

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Sanymetal "PORCENA" ACADEMY
Toilet Compartments are suitable for conservative but modern toilet room environments.



Sanymetal "PORCENA" NORMANDIE
Toilet Compartments endow a toilet room environment with dignity and good taste.

Sanymetal "PORCENA" CENTURY
Type Ceiling Hung Toilet Compartments offer the utmost in sanitation and provide modern, distinctive toilet room environments for schools, institutions, terminals and other public buildings.



Sanymetal "PORCENA" ACADEMY
Type Shower Stalls and Dressing
Room Compartments provide the
utmost in sanitation for tourist
camps, gymnasiums, clubs,
Y.M.C.A.'s, etc.

Write for Sanymetal Catalog 86
which illustrates modern toilet
room environments suitable for
all types of buildings. Several
attractive designs in a wide
range of colors available. This
catalog is also contained in
Sweet's ^{21b}/₈₆ Architectural File
for 1949.



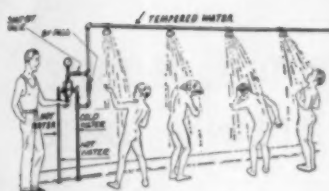
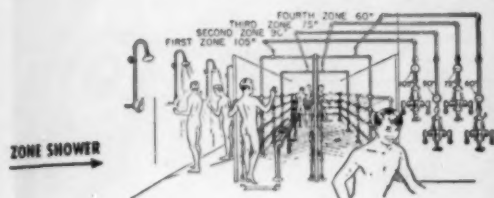
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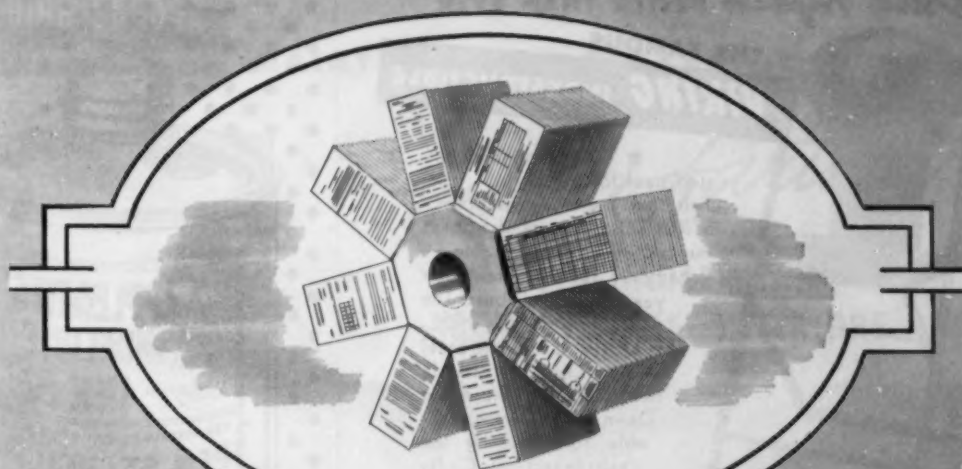
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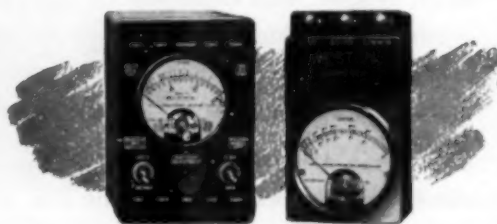


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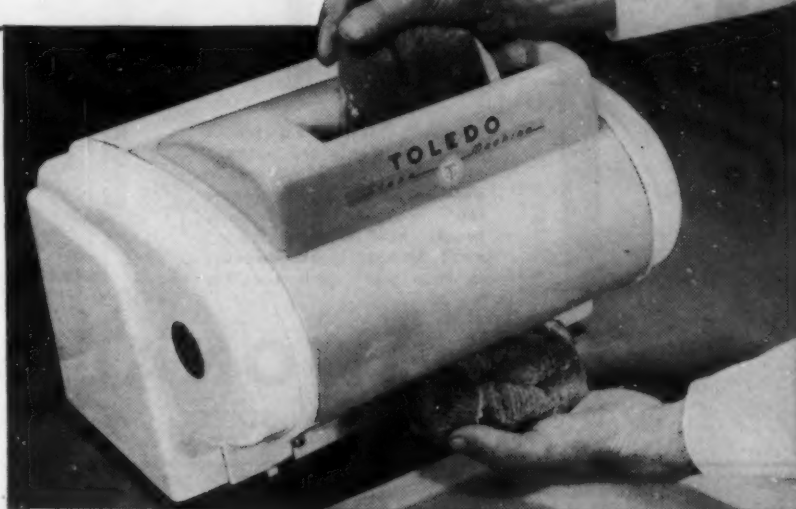
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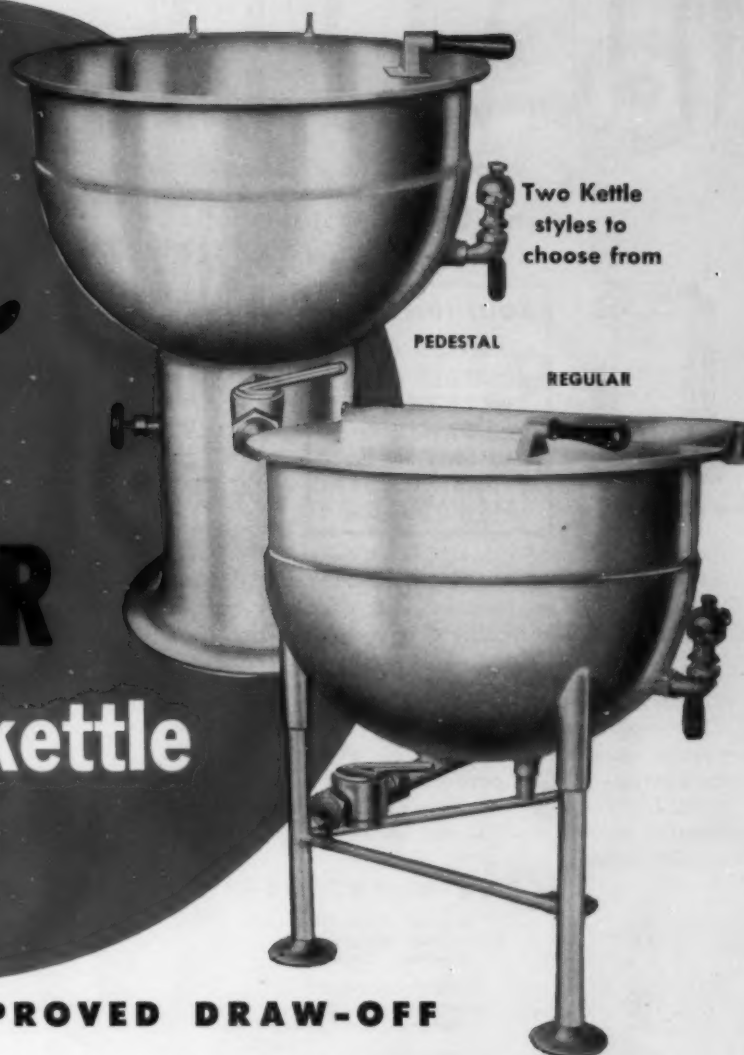


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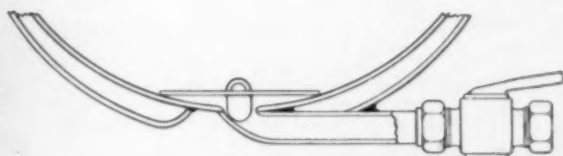
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● Thousands and thousands of "noise traps" in classrooms, corridors, noise centers!—that's the secret of Fibretone Ceilings. The noise traps are scientifically designed cylindrical holes drilled in the Fibretone sound-absorbing panels. In a classroom 23' x 35', for instance, you'd have 389,620 of these ingenious "noise traps," constantly functioning to trap and dissipate irritating, unnecessary noise—noise that reduces personal efficiency of students and teachers. Send for the new Fibretone brochure. Johns-Manville, Box 290, New York 16, N.Y.

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SMALL SANDERS

Many uses for the Sanderplane, a belt sander... and Speedy Spinner semi-flexible disc sander.



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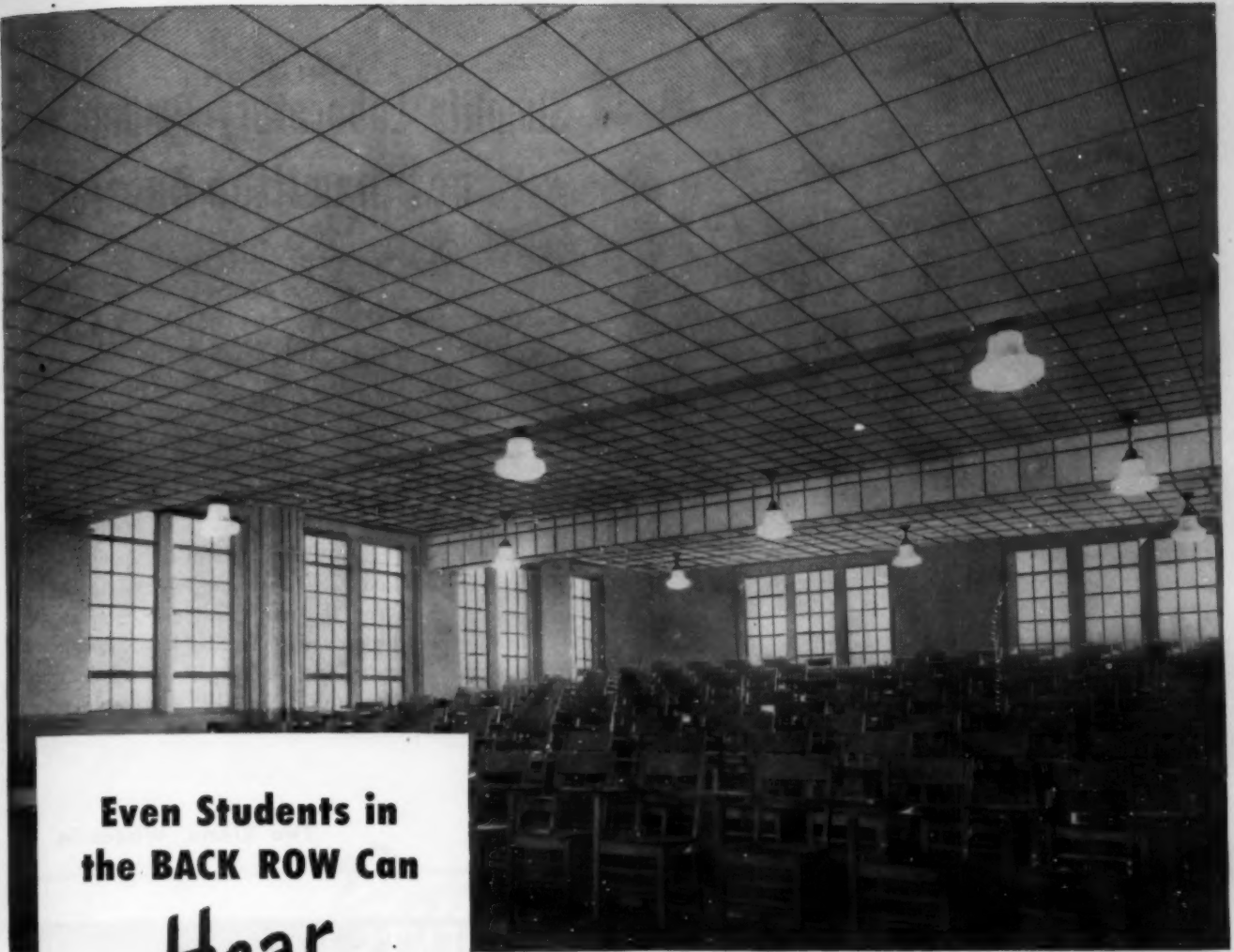
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**Even Students in
the BACK ROW Can**

**Hear
Distinctly**

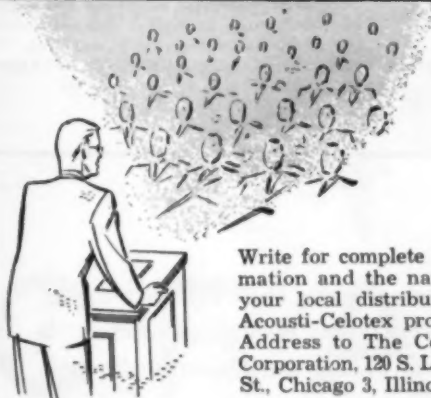
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Sound Conditioning
QUIETED
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Someone to fill a vacancy in your staff—a Business Manager—Superintendent of Buildings and Grounds—Purchasing Agent—Director of Food Service and Dormitories?

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... AND CRANE PLUMBING IS IN THE PICTURE

Pete doesn't give much thought to what's behind it—he only knows he feels just swell.

But Crane designers know what it takes to keep him that way. The fountain he just drank from . . . the Crane lavatories . . . showers . . . toilets . . . urinals . . . all are designed for maximum health protection.

And, of course, health comes first. But the very things that safeguard health—Crane sanitation, Crane dependability—these are also important to low maintenance. Less time spent on cleaning, less time lost on repairs—it *pays* to have the best!

You can have Crane school fixtures in a type and style for every college need. See the complete line at your Crane Branch, Crane Wholesaler, or Plumbing Contractor, whether you plan a new installation or the modernizing of your present facilities.



for health . . . Crane lavatories stay sparkling clean with a daily once-over. To renew one of these Dialase faucets, just slip out the old cartridge unit, slip in the new—one unit fits all Crane faucets. Shown: the 1-135 Oxford Lavatory.



for health . . . Crane urinals flush thoroughly every time—automatically, if desired. Crane supplies not only the fixtures themselves, but also the piping that makes them work. Shown: The 7-87 Correcto Urinal.



for health . . . Crane wall-mounted toilets make for easy cleaning below, highest sanitation all around. Shown: a Crane Lowall Closet.



for health . . . Crane drinking fountains are designed to prevent any possible contamination. Shown: a Crane Corridor Fountain.

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Symbol of Efficiency in Administration

"He that hath clean hands—," literally and figuratively in this instance means better students—better schools. Clean hands from clean washrooms mean efficiency. A tidy washroom does reflect thoughtful administration and makes a favorable, lasting impression on teachers, their parents and other visitors and commands the respect of students.

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Continuous automatic service, providing thoro-dry, chap-free hands in as little as 30 seconds. They eliminate towels at savings of 85% to 90% of towel costs plus all the costs of handling. No waste towel fire hazard; no towel-clogged toilets. The savings will amortize your investment in a remarkably short time.



Surface Wall Mounted—
Size 6 1/4" x 15"—Rugged

Easily installed in old or new buildings. Backed by 25 years experience and a 2 year guarantee, plus Underwriters' Laboratories approval.



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Your students, teachers and house mothers will welcome ELECTRIC-AIRE Hair Dryers in the dormitories—even if coin operated. Gently blows large volume of warm air, drying hair in 3 to 5 minutes, *reducing colds!* It also speeds washroom traffic. Both coin and free service types are available. Coin operated runs 5 minutes for 5 cents; free service shuts off automatically in 3 minutes. *Keep your institution modern with ELECTRIC-AIRE.*

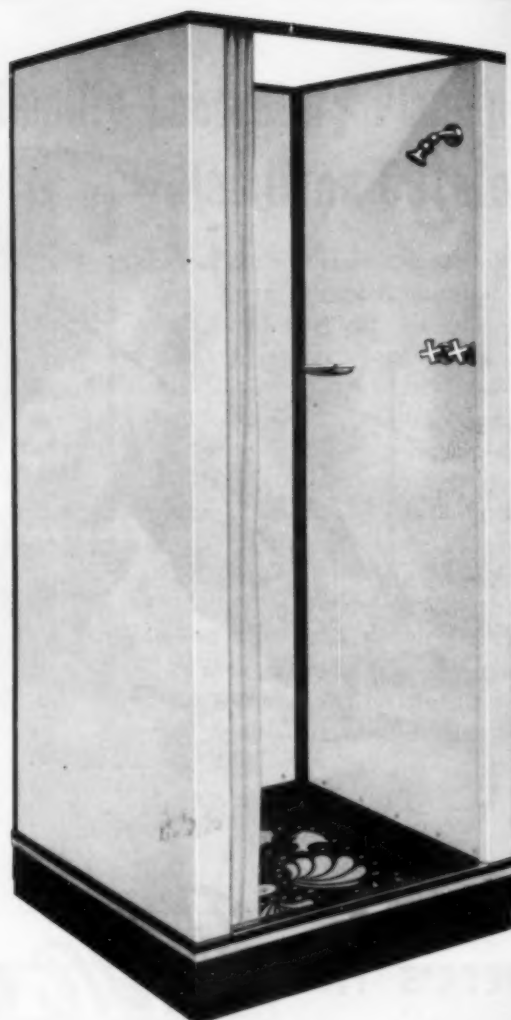
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Weisway
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COLLEGE and UNIVERSITY BUSINESS

SMART, NEW DORMITORY ROOM . . . BY SIMMONS! *Attractive, all-steel furniture assures years of outstanding service . . . at low cost.*

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MARYMOUNT COLLEGE

with **SIMMONS**
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STUDENT rooms at Marymount College are "homey" as well as comfortable. They're completely equipped with Beautyrest mattresses and Simmons all-metal furniture . . . the practical dormitory furniture that draws "straight A's" in beauty, construction and durability.

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You Easier Reading**



This section view of LB's new *TREND* book shelving shows how the tilted bottom shelf doubles the light on book titles for easier reading. A cork strip holds books firmly in place, prevents sliding.

Gustavus Adolphus College, St. Peter, Minn. • Magney, Tulser & Setter, Architects, Minneapolis


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TREND, the distinguished new furniture for libraries,
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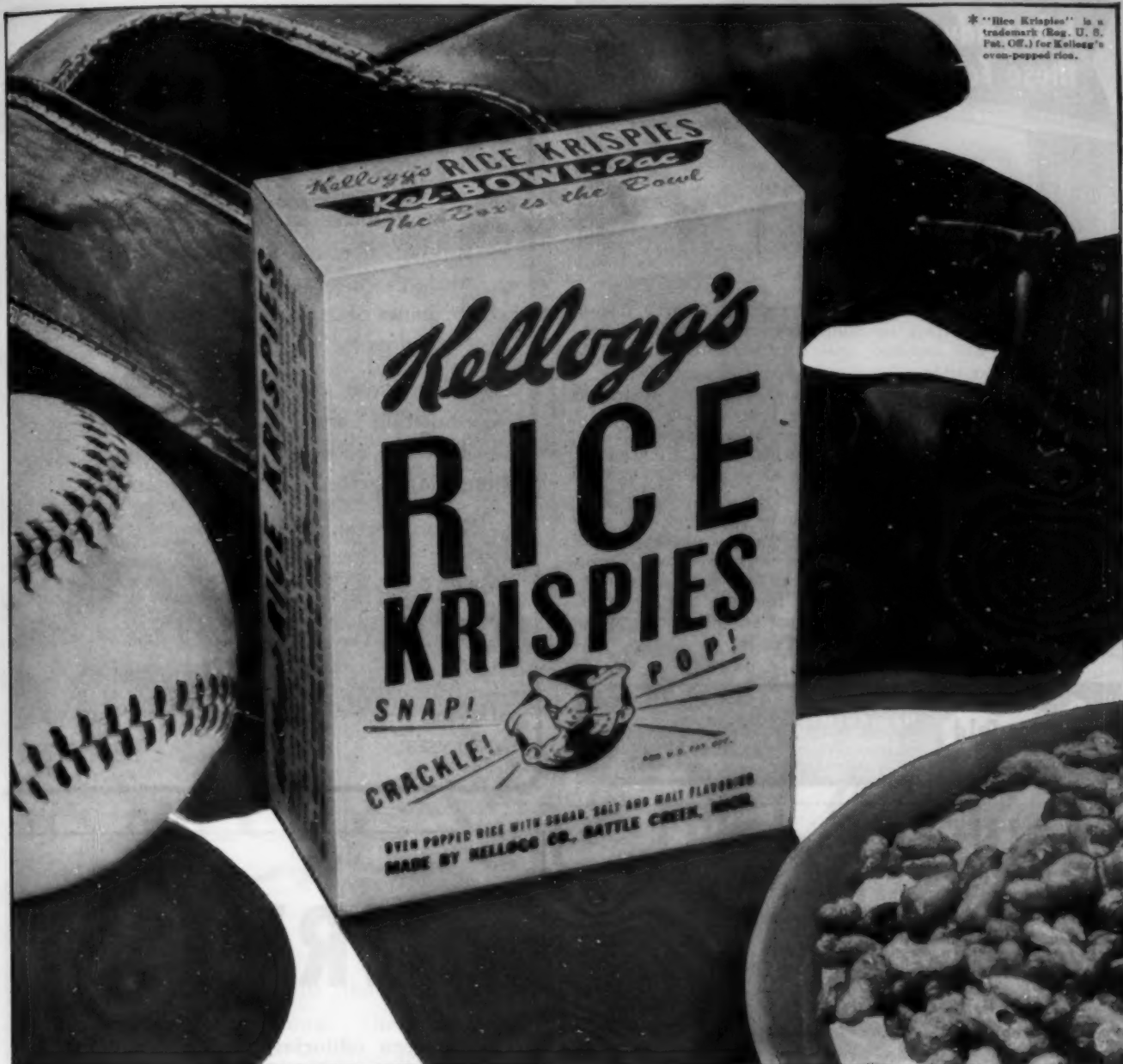
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Take Kellogg's Rice Krispies for example. It out-

sells all other ready-to-eat rice cereals combined. Naturally, the familiar flavor of this famous cereal is "home-town stuff!"

Many of your undergraduates were raised on Kellogg's Rice Krispies. Give it to them often in the handy individual size that students go for.

KELLOGG'S CORN FLAKES • RICE KRISPIES • ALL-BRAN • KELLOGG'S 40% BRAN FLAKES • KRUMBLES
KELLOGG'S SHREDDED WHEAT • KELLOGG'S RAISIN BRAN FLAKES • CORN-SOYA • PEP • RICE FLAKES

MOST STUDENTS LIKE *Kellogg's* MOST

THE GREATEST NAME IN CEREALS

Battle Creek and Omaha

What advantages are there in these Folding Doors for colleges?

In colleges and universities, Modernfold Doors are particularly well adapted to solve many types of closure and partition problems.

Modernfold is unique in closing units—with an accordion-like action in opening and closing. It saves the space swinging doors waste—every inch of wall and floor space is rendered usable and accessible.

The strong metal frame folding on itself provides easy, trouble-free operation. It assures a firm foundation to which easily cleaned, plastic-covered fabrics are attached. They are available in a wide variety of colors—to match any general color scheme.

Modernfold Doors can be used either as a "movable wall" for easy, economical room division, or as an attractive, space-saving closure for all types of interior openings. They have many applications in classroom buildings, residence halls, libraries, school offices, chapel buildings, etc. Write for full details.



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For Films
For Slides



Model SF-5



Model MF-6

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SAFE • COMPACT**

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SLIDE FILE CABINETS, Model SF-5. Hold all types 2"x2" slides—each held firmly in position with dividers for indexing. Five drawers with capacity for 1250 slides (2500 readymounts).

ALSO AVAILABLE: Model SF-5-S for "Blocked Unit" slides with 30 tabbed adjustable dividers. Capacity 2500 slides (5000 readymounts). All cabinets heavy gauge steel welded construction. Olive-grey baked enamel finish, chrome handles and index card holders. Overall size: 15" wide, 12" deep, 18" high.

Write for new Catalog No. 17 showing complete line 16MM Aids: Storage Racks, Rewinds, Splicers, Reels, Cans, Shipping Cases, Tables, etc.

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COLLEGE and UNIVERSITY BUSINESS



IT'S A LONG



FOR

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Cherry!

Students will like the atmosphere of good cheer IN this SIKES Solid Cherry group. The committee on interior furnishings will find cheer in its very reasonable first-cost, its almost indestructible *wood* construction. And the hand-rubbed, richly-figured solid Cherry, as finished by Sikes, holds a minimum of maintenance problems. *Wood* is the one furniture material whose beauty *increases* with age . . . transforming long and rugged usage into *added* charm and mellowness.

Ask for specifications and photos of this Sikes No. 80 Group. We also make SIKES "Colonist Craft" Early American Maple-finished Birch and SIKES *Colonial Cherry* . . . indeed, there is Sikes Furniture for practically every type and style of college building. *Please* state uses for which furniture is desired.

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WHAT'S NEW

OCTOBER 1949

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 44. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Ampro "Stylist" Sound Projector



Basically new in design and construction, the Ampro "Stylist" 16 mm. sound projector is a one-case portable unit weighing less than 29 pounds. Embodying the smooth, silent operation, clear, bright pictures and life-like sound reproduction of other Ampro units, the "Stylist" is ruggedly constructed and includes, in the one luggage-type carrying case, a complete 16 mm. sound projector, 8 inch Alnico speaker, amplifier, cords and accessories. The unit is quickly and easily set up for operation.

The use of magnesium for many basic parts as well as special plastic parts replacing metals are factors in reduced weight, bulk and cost of the new item. Ampro Corporation, Dept. CUB, 2835 N. Western Ave., Chicago 18. (Key No. 486)

Vinyl Carpeting

A new vinyl plastic flooring with a textured surface effect, in solid colors and in patterns, is being introduced under the name Vinatred. Made of fabric-backed vinyl plastic, Vinatred is the result of years of experimenting and floor testing. It is designed for use wherever constant traffic is a factor and is clean, comfortable, safe, quiet and economical. It is non-allergenic and has proved highly resistant to severe abrasive wear. The manufacturer states that it does not chip, flake or crack and will not buckle or curl.

Vinatred is available in three qualities, heavy, medium and light, and comes in rolls 36 inches wide. It is laid on a

sponge rubber base, and is available in 7 colors and can be custom ordered in any desired color. Southbridge Plastics Inc., Dept. CUB, 370 Fourth Ave., New York 16. (Key No. 487)

Interior Paint

Spred-Satin is the name given to a new interior paint recently announced. The new product has basic ingredients similar to those used in synthetic rubber, is easy brushing and has excellent flow qualities. It is practically odorless and is said to be dry enough to permit rehanging of pictures 20 minutes after application. The new paint is resistant to rubbing and can be spot-washed without losing color or sheen. It is fadeproof and provides a smooth finish which is impervious to dirt. Spred-Satin is available in 14 colors. The Glidden Co., Dept., CUB, 11001 Madison Ave., Cleveland 2, Ohio. (Key No. 488)

Dustless Power Sweeper

The Wilshire Power Sweeper has been improved by the addition of a blower and filtering system by which the dust is deposited in a specially designed bag that eliminates the necessity for frequent emptying and keeps the air dust free during sweeping.

The sweeper is designed for thorough cleaning either indoors or outdoors. The new Model 500 has a special guide wheel permitting sweeping up to walls and equipment without scraping or marring. It can be used equally well in sweeping gymnasiums, garages for faculty and student parking, and other large areas indoors and for sweeping and cleaning grounds.

Ruggedly constructed of heavy cast aluminum, Model 500 collects waste and sweeps grounds or floors in one operation. It is powered by a 3 h.p. air-cooled gasoline engine with finger-tip control, 6 heavy-duty brushes, chrome bumper bar and adjustable front suspension wheel. The new model is available in 27, 36 and 48 inch sweeper widths, is easy to operate, and may be equipped with Sulky to reduce operator fatigue. Wilshire Power Sweeper Co., Dept. CUB, 4615 Alger St., Los Angeles 26, Calif. (Key No. 489)

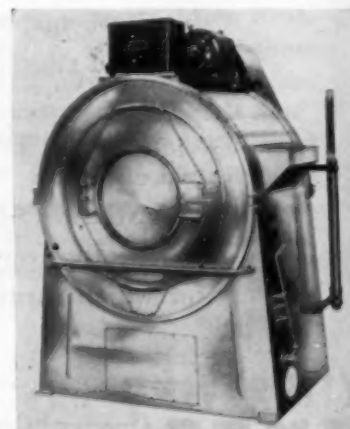
Micro-Projection Device

A new micro-projection device, which can be quickly and easily substituted for the Keystone Overhead Projector's standard objective lens, makes possible exceptionally clear and sharp projection of microscopic objects. The new device makes the Keystone Overhead Projector almost universally useful in the projection of transparent materials with small additional cost. Complete mitosis of microscopic organisms can be projected with the new equipment with unusual clearness and makes possible many highly effective demonstrations. Keystone View Co., Dept. CUB, Meadville, Pa. (Key No. 490)

Front-Loading Washer

The new 100 pound capacity 42 by 24 inch Cascade Front-Loading Washer is designed to provide for quick, economical washing of smaller classifications or as a fast, production washer. The large diameter cylinder assures thorough washing action and any load up to 100 pounds can be handled with maximum economy. Quick loading and unloading through the single door speed up production.

The tub and entire frame of the new washer are of Monel metal. The Monel metal tub door can also be furnished with Pyrex glass window if desired. The new washer has all of the mechanical



and construction features of other washers in the Cascade line. The American Laundry Machinery Co., Dept. CUB, Cincinnati 12, Ohio. (Key No. 491)

Tubular Steel Chair

Tubular steel is engineered into a Y-type designed chair in the new 60 Series, Deluxe tubular steel folding chairs. Built to last for years, the new chairs are extra large for maximum seating comfort and have curved plywood seat with body fitting, correct posture steel backrest. Leg stretchers, also of tubular steel, are die-formed and double riveted to the frame for extra rigidity and stability and to prevent the frame from twisting even under strain.

The steel dome glider feet on the new chairs are covered with heavy duty white rubber to protect floors from marring or scratching. The chairs are finished in Standard School Brown, Taupe or Olive Green baked-on enamel with walnut finished seats. Seat locking of the chairs is positive and the chairs are easily folded and stack flat for storage or handling. **Krueger Metal Products Co., Dept. CUB, Green Bay, Wis. (Key No. 492)**

Filmstrip Library Cabinet

A 6 drawer, all-steel cabinet has been designed especially for housing a filmstrip library. It offers a system for efficient filing, storing and use of filmstrips and each cabinet can store a total of 270 filmstrips. Each of the 6 drawers contains 45 individually numbered compartments for filmstrip titles and the system is expandable indefinitely through the addition of cabinets which can be lock-stacked on one another. Thus the system can be used to handle individual requirements for large or small filmstrip libraries, for a department or for the whole school. Instructions and suggestions for setting up a filmstrip library or integrating the plan with present filmstrip library operations are provided with each Filmstrip Library Plan. **Jack**



C. Coffey Co., Dept. CUB, 205 W. Wacker Drive, Chicago 6. (Key No. 493)

Refrigeration Equipment

Especially developed for use in institutions are the new commercial refrigerators recently announced by Frigidaire. Designed by Raymond Loewy, the cases are finished in white with free-flowing lines and chromium trim. The cabinets are constructed of heavy gauge steel with welded over-lap joints sealed to keep out moisture and interiors are finished in white porcelain with acid-resistant bottom panels.

The new 44 cubic foot reach-in refrigerator is equipped with a new forced air cooling unit, has an improved, sealed and self-oiling Meter-Miser compressor in a small ventilated space below the food compartment, has three full length doors equipped with rubber seals and shelves which can be adjusted to satisfy individual requirements. The new 17 cubic foot refrigerator of the ice-making type can store up to 56 pounds of frozen food in the freezing compartment, is equipped with Quickube trays which will freeze 84 ice cubes or 12 pounds of ice and have automatic tray release and lever-operated cube release, a deep glass Meat Tender, two full length doors and a 10 position Cold-Control to adjust temperature to requirements. **Frigidaire Div., General Motors, Dept. CUB, Dayton 1, Ohio. (Key No. 494)**

Reynolds Restaurant Wrap

Lightweight pure aluminum foil in rolls in a size to fit wall or table dispensers is now available. It is also used for covering trays of food to be stored, including cold meats, salad greens and sandwiches, since it can be sealed to edges of plates and trays to provide an air-tight covering, thus keeping food from drying out. Poultry and meat roasts completely wrapped in the foil and then cooked require no basting and show considerably reduced shrinkage. The material is durable and the same piece can be used many times. **Reynolds Metal Co., Dept. CUB, 19 E. 47th St., New York 17. (Key No. 495)**

Electric Potato Peeler

The Peelmaster Electric Potato Peeler has been redesigned with a new 1 piece aluminum interior which serves as a peeling pot and washing sink. The new interior is so constructed as to allow easy drainage of peelings and water and the machine has working capacity increased to 20 pounds. The table height peeler has a new, smoother peeling disc, carries the Underwriters' label and sells at the same price as the earlier model. **Service Appliance Corp., Dept. CUB, 1775 Broadway, New York 19. (Key No. 496)**

Floor Machine



The Johnson's Wax Super 16 is a heavy-duty chrome plated all-purpose floor machine made to handle any type of floor maintenance job. Besides polishing and scrubbing, the Super 16 may be used to sand, steel wool, grind and wax floors of all kinds and can be used with a solution tank and shampoo brush to shampoo rugs.

The $\frac{3}{4}$ h.p. compact induction type motor is enclosed in a heavy aluminum casting, finished in chrome plate. Smooth operation is assured by the uniform distribution of weight over the brush area and patented finger springs keep the machine level under any floor conditions. **S. C. Johnson & Son, Inc., Dept. CUB, Racine, Wis. (Key No. 497)**

Caster Clip

Casters can now be attached to the bottom of mopping tanks without drilling holes which might develop leaks or rust. A heavy clip, designed to go under the head of each caster-nut and over the bead of the tank, pulls the caster spider against the inner side of the tank flange and rigidly locks it in place. Tanks with the improved casters are now available in 32 and 44 quart sizes as standard. **Geerpres Wringer, Inc., Dept. CUB, Muskegon, Mich. (Key No. 498)**

Diesel Electric Plant

Colleges making their own electric power, or interested in doing so because of location or cost, will want to know about the Model 5DRP 5000 watt AC diesel electric plant. Combining unusually smooth operation and compact design, the new model produces low cost electric power and is designed for portable applications or for permanent installation. The new two-cylinder opposed type Diesel engine is the result of long research and intensive study and provides smooth, vibration-free operation. **D. W. Onan & Sons, Inc., Dept. CUB, Minneapolis 5, Minn. (Key No. 499)**

Tempo Duplicator



Push-button control provides automatic operation, feeding, slipsheeting, paper stacking and ink supply in the new all-electric Tempo Duplicator. All mechanisms, including the motor, are self-contained in the frame, making the duplicator portable and leaving the steel cabinet free for storage.

The new duplicator is simple to operate. After loading paper in the feed tray and releasing the rising feed table, which automatically adjusts itself to thickness of paper, it is only necessary to push one button to start the motor and a second button to start paper feeding. A visible dial counter shuts off paper feed when the desired number of copies is run.

The Tempo Interleaver automatically slipsheets copies at speeds up to 180 per minute if desired but can be turned out of the way when not in use. The new Tempo Feed principle feeds one sheet at a time with a minimum of paper lint. All parts subject to corrosion or tarnishing are of stainless steel, the ink cylinder has aluminum end plates and the new duplicator has a smooth, hammertone finish of dove gray with pen-line trimming in cardinal red. It may be operated by hand if desired and bearings are oil-sealed for reduced maintenance. The all-steel cabinet has 2 doors, 4 shelves and storage space of approximately 10 cubic feet. Interior arrangement may be adjusted to suit the needs. Milo Harding Co., Dept. CUB, 432 W. Pico Blvd., Los Angeles 15, Calif. (Key No. 500)

Lightweight Air Conditioner

An air conditioning unit that is portable, self-contained in a streamlined case, and designed to give a complete change of air every three minutes in the average sized classroom has recently been introduced. The MD Pure Air Conditioner is available in two sizes, and operates on the water evaporation principle. It requires no plumbing installation, causes no direct drafts and is quiet in operation. The unit cools and filters the air while humidifying and deodorizing it. In winter it may be placed near a heating outlet to circulate warm air. The unit

takes up a minimum of space and is inexpensive in cost and operation. M.D. Pure Air Conditioner Div., Alumalloy Engineering Co., Dept. CUB, Bloomington, Calif. (Key No. 501)

4-Lite Guthlite

The Guthlite, Jr. is now available in a 4-40W size featuring high lighting efficiency with low surface brightness. The fixture is of all-metal construction with louvers hinged for easy relamping. The sides of the luminaire are illuminated by a spill light to produce a radiant glowing effect. The Edwin F. Guth Co., Dept. CUB, 2615 Washington Ave., St. Louis 3, Mo. (Key No. 502)

Refrigerated Apple Vender

Vending of chilled apples is now possible with the new "Frigi" Refrigerated



Automatic Apple Vending Machine. Set to keep apples at the proper degree of coldness, the vender has refrigerated space for an extra box of apples in the base of the machine. The machine is equipped with a coin changer to make change for a 25 cent piece and may be set to vend apples for 5 or 10 cents each as desired. The vender provides a service to students and teachers and may be used as a source of revenue for the college. Frigid Fruit Co., Dept. CUB, 1301 S. 20th Ave., Yakima, Wash. (Key No. 503)

Incinerator Water Heater

A water heating unit can now be attached to the Plibrico Portable Incinerator. Thus hot water can be provided without fuel cost when refuse is burned. The single unit has a capacity of 50, 75 or 100 gallons per hour depending upon the size of the incinerator. Plibrico Jointless Firebrick Co., Dept. CUB, 1800 Kingsbury St., Chicago 14. (Key No. 504)

Automatic Ice Maker

The new "X" line of automatic ice cube makers is now going into production. The X-10 features front delivery of ice into an insulated, stainless steel storage cabinet which is detachable and can be rolled away to any dispensing point while another takes its place. The unit automatically shuts off when the storage cabinet is filled and produces approximately 400 pounds or 7360 solid, standard sized cubes daily. Other models in the X line will make from 5440 to 14,720 cubes every 24 hours depending upon size. The Ice-Flo Corp., Dept. CUB, Lonsdale, R.I. (Key No. 505)

Refrigerator Odor Eliminator

Food in walk-in and reach-in coolers can be protected against odors with the new small, compact odor absorber called the "Food Saver." Employing activated carbon as a filter, the device removes gases and odors from the refrigerator air, thus preventing food being spoiled by cross odors. The "Food Saver" is simple in design and one unit is said to sweeten up to 1000 cubic feet of air. W. B. Connor Engineering Corp., Dept. CUB, 114 E. 32nd St., New York 16. (Key No. 506)

Steak Tenderizer

A new line of machines has been announced for tenderizing meat, whether large or small pieces, to various degrees as desired. Machines are furnished in Deep Cut, Medium Cut or Light Cut, are adjustable for thick or thin meats and are especially effective in knitting small pieces into patty or individual portions. The stripper arrangement can be instantly moved, making a tendering machine only, if desired.

Known as the SirSteak, the machine is readily opened without the use of tools for inspection and cleaning and all parts are immediately accessible. The SirSteak is ruggedly constructed for long wear and the straight gravity feed makes



the machine fast and easy to operate. SirSteak Machinery Inc., Dept. CUB, P.O. Box 201, Concord, Mass. (Key No. 507)

Auditorium Chairs

Portable auditorium chairs in series units in a new design are now available. Made with 1 by 2 inch hardwood frames rigidly joined with glue and bonderized screws and hardware, the new 292-A chairs are ganged with 1 by 2 inch hardwood cross member leg stretchers. The curved posture seat and backrest are of hardwood faced laminated veneer.

The stretcher joining the chairs in gangs or units is across the back of the front legs, thus allowing more room between rows. Unit assembly of chairs permits easier access to the seating and easier handling and movability for setting up or storage. The chairs are ganged in units of two or three. **Norcor Manufacturing Co., Inc., Dept. CUB, Green Bay, Wis. (Key No. 508)**

Divide-A-Files

Self-Adjusting Divide-A-Files are a new feature of the Super-Filer filing cabinets recently announced by The General Fireproofing Company. The Divide-A-Files adjust automatically to changes in the volume of drawer contents, thus saving time and manual effort when filing or withdrawing material. They also break up the drawer load and keep the contents under compression when the drawer is closed.

With the swing front on the drawers of the new files, and the Self-Adjusting Divide-A-Files to create a rear slant, filing, finding and reference are facilitated and the entire drawer can be filled to capacity without having to save space for handling. **The General Fireproofing Co., Dept. CUB, Youngstown 1, Ohio. (Key No. 509)**

Color Slide File

A new type file box has been designed especially for filing miniature black and white and color transparencies. A simple, practical file, the unit consists of 12 compartments hinged together in



such a way that they form a complete file box when closed. The compartments are open along the top and sides but

will easily hold from 1 to 20 cardboard slides or up to 8 glass-mounted slides each. Any compartment of the file may be swung out from the base of the box, thus making all slides instantly and conveniently accessible. An index sheet is provided on the inside of the cover. **Eastman Kodak Co., Dept. CUB, Rochester 4, N.Y. (Key No. 510)**

Low Floor Machine

Especially designed for institutional use, the new Silent Huntington Low-Hite Floor Machine is only 11 inches high, from floor to top of motor housing. It is low enough to scrub and polish under most furniture, yet heavy enough for quality work. The new machine is designed to polish, scrub, buff wax, steel wool and shampoo. It is quiet and efficient and is equipped with a safety grip switch. It is available in 12 or 16 inch sizes with a quiet planetary gear drive. An additional feature of the new machine is the retractability of the wheels

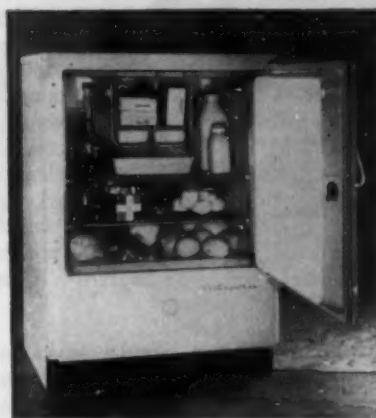


which can be pulled out of the way when the machine is in operation. **Huntington Laboratories, Inc., Dept. CUB, Huntington, Ind. (Key No. 511)**

Mildew Inhibitor

A new product has been developed for use in the laundry rinse to inhibit the growth of mildew in linens. It may be used on all types of items in the laundry, including white and colored starch work, towels, bed and table linen and uniforms. Known as Biolite, the product is a water soluble fungicide which, when added in small quantity to the rinse, penetrates the fabric fibers and remains until the fabric is re-washed, when it is removed by the high alkalinity of the initial sudsing operation. Biolite obviates the necessity for the strong bleach solution used to remove mildew stains, thus increasing the possible life of linens. The product is sold through laundry supply houses and was developed by **Monsanto Chemical Co., Dept. CUB, 1700 S. 2nd St., St. Louis 4, Mo. (Key No. 512)**

Undercounter Refrigerator



An undercounter, 4 cubic foot refrigerator has been introduced by Westinghouse for installation under standard height sink drainboards and kitchen counter surfaces. It requires only 24 inches of space, includes a small freezer for holding frozen food and has two 14 cube ice trays. It should be particularly suitable for installation in dormitory and faculty housing units as well as in other small kitchens and utility rooms. **Westinghouse Electric Appliance Div., Dept. CUB, Mansfield, Ohio. (Key No. 513)**

Air Freshener

Fortified with a high content of propylene glycol and triethylene glycol, Ozium is described as a fast-acting air freshener which is extremely effective and eliminates objectionable odors almost instantly by neutralizing them. Tests have indicated that these glycols also have bactericidal qualities.

Ozium provides economical air freshening. It is highly concentrated and packed under pressure in small metal cylinders, each containing enough to treat the air in approximately 50 average sized rooms, which slip easily into the dispenser. Designed to fit into the hand, the dispenser is only 4 3/4 inches long and 1 1/4 inches in diameter. It operates by a light touch of a lever which releases a fine mist-like spray that quickly diffuses into the air. **Woodlets Inc., Dept. CUB, Portland, Pa. (Key No. 514)**

Heatproof Dinnerware

Jade-ite is the name given to a new line of dinnerware of an attractive jade green color. It is heatproof and will not craze or warp when prewarmed for serving hot dishes. It is so constructed that it cannot absorb liquids, food particles or odors and can be kept sanitary under all conditions of use. The new line is available in 16 items essential for institutional feeding. **Anchor Hocking Glass Corp., Dept. CUB, Lancaster, Ohio. (Key No. 515)**

Product Literature

• The many features of "The New Bradley Duo-Washfountain" are illustrated and described in a 4 page folder, K711, issued by Bradley Washfountain Co., 2203 W. Michigan St., Milwaukee 1, Wis. Modern design, foot control, economy, mixing valve, easily-cleaned sprayhead and self-flushing bowl are features of the washfountain which are discussed, supplemented by roughing-in dimensions and diagrams. (Key No. 516)

• A recently issued circular gives interesting information on the new synthetic laundry detergent, Skortex, developed by Wyandotte Chemicals Corp., Wyandotte, Mich. Included in the circular are graphs showing the soil removal and whiteness retention properties of Skortex and an illustrated discussion of the relative merit of suds in a detergent solution. (Key No. 517)

• Catalog No. 205 issued by the Crown Institutional Equipment Co., 218 S. Wabash Ave., Chicago 4, gives complete descriptive information on its full line of institutional furniture and equipment. Classroom seating for student and teacher, office furniture, laboratory and cafeteria furniture, wardrobes and lockers are all included with illustrations and prices. The 48 page catalog is fully indexed. (Key No. 518)

• A leaflet entitled "Do We Make Exactly What You Need Now?" has been prepared by Corning Glass Works, Laboratory & Pharmaceutical Sales Department, Corning, N.Y. Designed to be sent to laboratory directors, it further states, "Corning has the experience and facilities to meet your precise needs dependably" and carries a blank page for the reader's apparatus needs to be described or sketched. (Key No. 519)

• The Loxit Chalkboard Setting System is discussed and illustrated in an attractive booklet recently issued by Loxit Systems, Inc., 1217 W. Washington Blvd., Chicago 7. This system combines a metal ground with snap-on trim—springs and clips to receive and hold boards and trim as self-contained units. The system is designed to provide the maximum amount of adjustment and pages of sketches in the new booklet give full information on its application and use. (Key No. 520)

• Technical Bulletin No. 1 issued by Sarcotherm Controls, Inc., 350 Fifth Ave., New York 1, is the first of a series of bulletins designed to assist architects and engineers in selecting the appropriate controls for radiant heating systems. Descriptions and wiring diagrams of thermostats developed especially for radiant heating are included. (Key No. 521)

• "Invisible Warmth" is the title of the attractive 8 page Bulletin No. 540 issued by The National Radiator Company, Johnstown, Pa. Installation of cast iron convectors concealed by inconspicuous sheet steel enclosures to produce both convected and radiant heat is the subject of the bulletin which gives dimensions, convection data, E.D.R. ratings and roughing-in measurements for all National Aero Convectors. (Key No. 522)

• A new 74 page catalog has been issued by Sylvania Electric Products Inc., 500 Fifth Ave., New York 18, covering its complete line of fluorescent lighting fixtures. In addition to full data on application, construction, mounting methods, reflectivity, maintenance and lamp spacing on fixtures, a supplementary section provides a practical guide on How To Plan A Fluorescent Lighting Installation, including details on how much light is needed, which fixtures will do the job, how many fixtures are required and the best fixture arrangement. (Key No. 523)

• The National Dairy Council, 111 N. Canal St., Chicago 6, has released two attractive booklets enclosed in a single flat envelope for filing. One booklet is devoted to "Health Education Materials," folders, booklets, posters, charts and motion pictures and slide films available through the National Dairy Council. The second booklet, printed with full color illustrations bordering the pages and as charts, maps and graphs, tells the story of "Ice Cream, a Product of Town and Country." This 28 page booklet is most attractively laid out and printed and reads like a story book, the facts being presented with imagination and interest. (Key No. 524)

• A new 4 page Bulletin 208-6 issued by Mills Industries, Inc., 4100 Fullerton Ave., Chicago 39, describes and illustrates the Mills 400-C Automatic Fountain for beverage dispensing in cups. The vending mechanism is shown in detail with data on its ease of operation, tamperproof features and minimum servicing requirements. (Key No. 525)

• A series of leaflets giving detailed information on the various clay products manufactured by National Fireproofing Corp., 202 E. Ohio St., Pittsburgh 12, Pa., has recently been published. Containing information of interest to administrators, engineers, architects and builders, the leaflets give full information on Natco Salt Glazed Dri-Speedwall Tile, Natco Buff Unglazed Dri-Speedwall Tile, Natco Glazed Structural Facing Tile (Vitrile) and a special sheet, punched for loose-leaf binding, gives data on "1950 Color Standards Natco Glazed Structural Facing Tile." (Key No. 526)

• The Fleur-O-Lier Index System for specifying lighting performance and for rating fluorescent lighting fixtures has recently been revised to include three new shielding classifications: O-20 and O-30 for fixtures with side shielding of less than 10 degrees but having end shielding of either 20 or 30 degrees down from the horizontal plane, and a new 45-45 shielding classification to cover fixtures with square egg-crate type of louvers and resulting 45 degree shielding in both directions such as is popular in school lighting. The Index System is designed as a simple method by which the specifier may indicate the essential illuminating performance desired for any installation and also to serve as a means of identifying fluorescent lighting fixtures on the basis of their illuminating performance. The revised Fleur-O-Lier charts with the new classifications are available from Fleur-O-Lier Manufacturers, 2116 Kieth Bldg., Cleveland 15, Ohio. (Key No. 527)

• The Marble Institute of America, 108 Forster Ave., Mount Vernon, N.Y. has issued a comprehensive booklet on "The Care and Cleaning of Marble" which should prove invaluable to maintenance and housekeeping departments of institutions with any marble in the structure. The 16 page booklet gives detailed instructions for cleaning interior building marble, exterior building marble, removing stains, cleaning by the poultice method; gives directions for making bleach and Javelle water and mentions precautions to be taken in cleaning marble. (Key No. 528)

• "Royalchrome Distinctive Furniture" is the title of a catalog issued by Royal Metal Mfg. Co., 175 N. Michigan Ave., Chicago 1. Information on the construction and manufacturing details of Royal metal furniture is an interesting feature of the catalog which illustrates and describes the full line of metal furniture manufactured by the company. (Key No. 529)

• A new folder on Backwater Sewer Valves, designed to protect property, equipment and supplies against backwater from excessive rain, flood conditions and inadequate sewer carry-off, has recently been issued by Josam Mfg. Co., 1302 Ontario St., Cleveland 13, Ohio. (Key No. 530)

• Bulletin TP-1 gives information on the line of Program Bell Transfer Panels for operating bell systems available from Cannon Electric Development Co., 3209 Humboldt St., Los Angeles 31, Calif. Panels, used in conjunction with program clocks and providing for selection of any bell or group of bells on any schedule desired, are described and illustrated. (Key No. 531)



PEELERS



DISHWASHERS



MIXERS



MEAT SAWS



FOOD CUTTERS

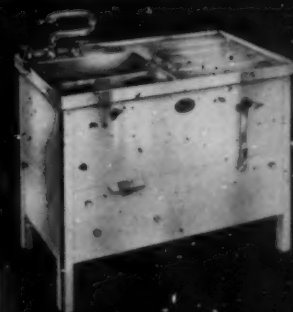


MEAT CHOPPERS

Pass-keys to Performance

Kitchen machines to improve standards and lower operating costs! Food machines to enhance flavor and quality, to cut costs through increased employee-volume and decreased waste! Every one of them Hobart through and through — dependable, sturdy, long-wearing — clean in design and clean in performance. All of them are backed by the greatest name in food machines—designed and produced in a complete range of sizes and capacities—sold and serviced through nation-wide representation.

That's what an all-Hobart installation means to your operation! See Hobart food and kitchen machines — select the individual models that meet every need most economically. You'll find that the Hobart trade mark unlocks new portals to performance. Quick deliveries, too!



GLASSWASHERS



FOOD SLICERS



Hobart

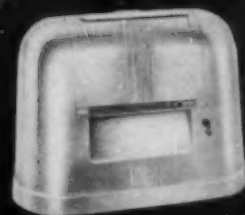
FOOD
MACHINES

THE HOBART MFG. COMPANY, TROY, OHIO • **Factories in Troy, Dayton, Greenville, Minneapolis, U. S. A.** • *The World's Largest Manufacturer of Food and Kitchen Machines*
CANADA • BRAZIL • ENGLAND • AUSTRALIA • FRANCE

Steakmaker tenderizers are manufactured by Hobart-Federal Engineering Corporation, a Hobart Subsidiary.

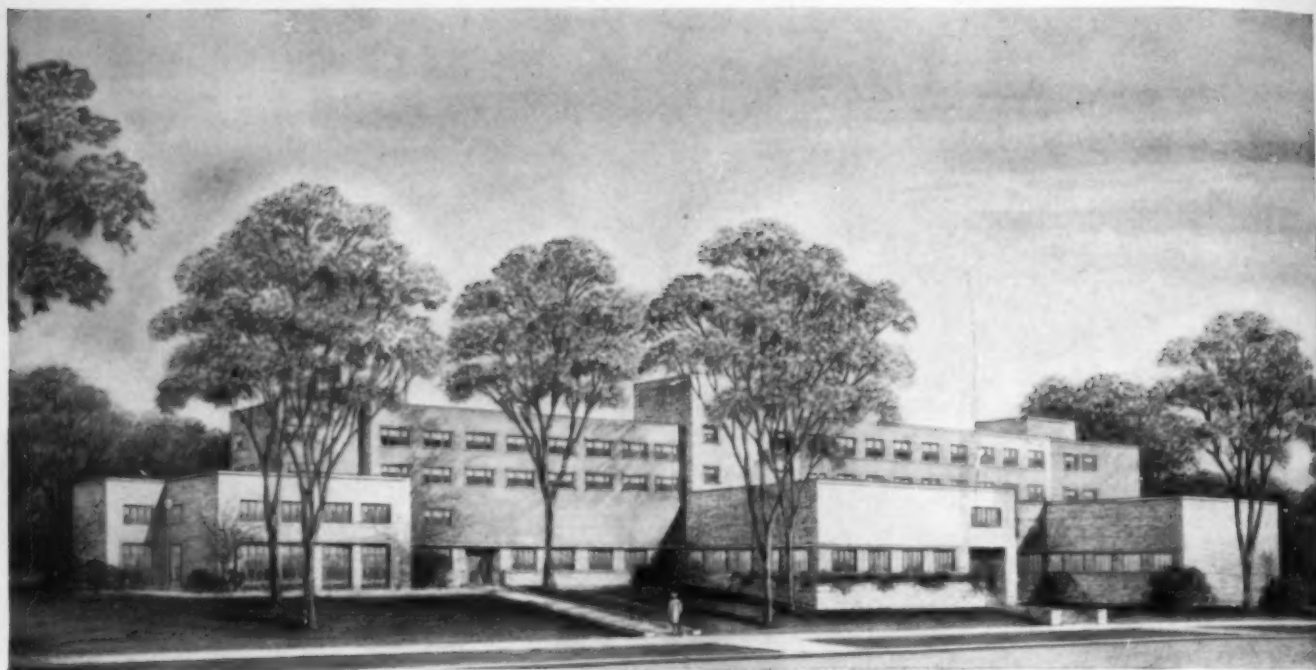


COFFEE MILLS



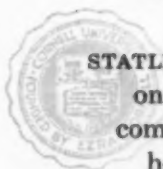
TENDERIZERS

ANOTHER BUILDING OF PROMINENCE SLOAN EQUIPPED



now a dream comes true . . .

a hotel goes to college!



STATLER HALL, a dream of years and now nearing completion on the campus of Cornell University, will be the nation's first building combining classrooms and laboratories for scientific training in hotel management. The building will also include kitchens, dining rooms and sleeping rooms for the practice of hotel operation.

Because of its purpose such a building must, of necessity, be representative of the most modern facilities and functions.

In all details it must demonstrate the best thinking of specialists in construction, equipment and maintenance. Little wonder, then, that all Flush Valves specified for this building bear the name SLOAN.

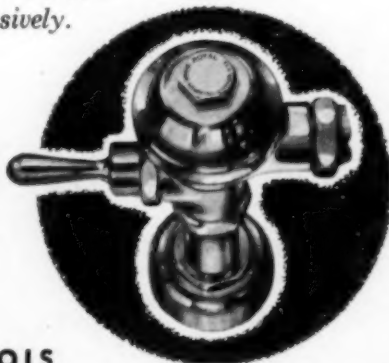
HOLABIRD & ROOT & BURGEE, Chicago
Architects & Engineers

JOHN W. COWPER CO., INC., Buffalo
General Contractors

CHIPPEWA CONTRACTORS, Buffalo
Plumbing Contractors

Thus the installation of Sloan Valves in STATLER HALL further supports a nation-wide survey which showed that 63% of all hotels having 50 or more rooms prefer SLOAN and that 92.7% of these prefer SLOAN *exclusively*.

more ***SLOAN Flush VALVES***
are sold than all other makes combined



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